

wo-master Sustainable Entrepreneurship University of Groningen

6 November 2017

NVAO limited initial accreditation

Panel report

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1 Executive summary

The Accreditation Organisation of the Netherlands and Flanders (NVAO) received a request for an initial accreditation procedure regarding a proposed wo-master Sustainable Entrepreneurship (SE) at the University of Groningen. NVAO convened an expert panel, which studied the information available and discussed the proposed programme with representatives of the institution and the programme during a site visit.

Standard 1. Intended learning outcomes

The aim of the SE programme is to educate people who can support the transformation of an unbalanced world economy driven by neoclassical industrial economics to a sustainable society founded on balancing the interests of people, planet and profits. The programme is designed to ensure its graduates develop a personal value system with respect to sustainable entrepreneurship, have acquired an academic research foundation and have developed a portfolio of leadership roles. The panel appreciates the novel transdisciplinary approach, linking knowledge at an academic level to real-life sustainability issues of organisations. The combination of cognitive and social skills is a strong point, as is the solid network of regional companies and organisations. The intended learning outcomes are at the appropriate master's level and in line with the expectations of the professional field, the discipline and international requirements. The panel notes three points of improvement. First, it is important to clearly explain what is meant by the term 'entrepreneurship' in the programme's name, and, second, to manage the students' expectations. Third, the intended learning outcomes can be geared more strongly to the sustainability focus by including more knowledge acquisition on this field of expertise and adopting a more specific social competence framework related to sustainability entrepreneurship. Notwithstanding these recommendations, the panel is convinced that SE will be a valuable programme, educating the innovators of the future.

Standard 2. Teaching-learning environment

The one-year curriculum consists of four blocks of 15 EC. Each of the first three blocks consists of three courses of 5 EC. Each course consists of an academic foundation and a lab (research lab, leadership lab and entrepreneurship lab respectively), and focuses on one of the leadership mind-sets. At the start of the programme, students select a key question and case, which may originate from a regional or national company or organisation. This link with a specific issue and organisation will help the students to translate their academic knowledge to real-life practice, culminating in their graduation project in the fourth block of the programme.

The programme structure is translated into a weekly schedule, with mandatory attendance for class meetings. Although this is not usual in master programmes, the panel agrees that it will contribute to the learning community the programme aims for. A wide range of teaching methods will be used. Within the courses, students work on assignments individually (leadership), in pairs (research) or in a team (entrepreneurship). The panel considers the didactic approach to be creative and conducive to the programme's learning objectives. The study materials reflect the current state of the debate in sustainability and entrepreneurship.

The programme is a selective Master's programme. The target group consists of bachelor graduates with a degree in economics and business. An introductory course in sustainability for these students, who are presumably educated in the neoclassical approach, is not envisaged. The strict programme structure makes it difficult to allow such an additional

course, but a remedial (summer) course or at least a reading list could be necessary to help students to prepare for the programme. Campus Fryslân, where the SE programme will be organised, will host an interdisciplinary bachelor's programme Global Responsibility and Leadership, inspired by the UN Agenda for Sustainable Development, starting in 2018. In a few years' time, the SE programme will be an attractive option for these bachelor graduates. In the longer run, the panel advises broadening the intake of students to include graduates with a background in natural sciences and technology.

Based on the documentation and interviews, the panel concludes that the programme will be taught by an enthusiastic and knowledgeable team of staff. All staff members are experts in sustainable entrepreneurship, reflected in research and/or consultancy experience. PhD students will be involved as tutors and teaching assistants.

Campus Fryslân will be housed in De Beurs, located in the centre of Leeuwarden. The purchase of this building is subsidized by the city and the province, based on an agreement of commitment with the University of Groningen to at least the year 2030. The panel considers this a strong basis for the programme's sustainability and the cooperation with its environment.

The panel concludes that the curriculum, teaching methods, quality of teaching staff and facilities enable the incoming students to achieve the intended learning outcomes.

Standard 3. Assessment

For the assessment of intended learning outcomes, the programme uses a variety of sometimes quite innovative assessment methods (such as the two-stage exams) that reflect the range of skills that graduates will need in their future career. The procedures for assessment are clear and will ensure the validity, reliability and transparency of the assessments. The panel found the level of the questions in the examples of the two-stage exams too low. They were focused on the reproduction of knowledge, which is at bachelor rather than at master level, and did not test the students' analytical and reflective skills. The level of the two-stage exams should be raised to the appropriate master level. Based on the discussion about this issue with the programme staff, the panel expects that this will be remedied in time. The Examination Board is not yet fully operational, but the outcomes of its first meeting and the discussion during the site visit show that it is qualified and well-prepared for its task. The panel concludes that the assessment system is adequate.

The panel comes to the conclusion that the programme meets all assessments standards. Given these considerations, the panel advises NVAO to take a positive decision regarding the quality of the proposed programme wo-master Sustainable Entrepreneurship at the University of Groningen.

The Hague, 6 November 2017

On behalf of the Initial Accreditation panel convened to assess the wo-master Sustainable Entrepreneurship at the University of Groningen,

prof. dr. P.C. (Peter) van der Sijde
(chair)

dr. M. (Marianne) van der Weiden
(secretary)

2 Introduction

2.1 The procedure

NVAO received a request from the University of Groningen for an initial accreditation procedure including programme documents regarding a proposed wo-master Sustainable Entrepreneurship.

An initial accreditation procedure is required when a recognised institution wants to award a recognised bachelor's or master's degree after the successful completion of a study programme. The procedure for initial accreditation is slightly different as compared to the approach for programmes that have already been accredited. Initial accreditation is in fact an ex ante assessment of a programme. The programme becomes subject to the normal accreditation procedures once initial accreditation has been granted.

To assess the programme, the NVAO convened an international panel of experts (see also Annex 1: Composition of the panel). The panel consisted of:

Chair:

- prof. dr. P. C. (Peter) van der Sijde, professor of Organisation, Entrepreneurship and Technology at VU University Amsterdam;

Panel members:

- prof. dr. J.M. (Jacqueline) Cramer, professor in Sustainable Innovation at Utrecht University, director of consultancy firm ' Sustainable Entrepreneurship; Strategy and Innovation Consulting' and member of the Amsterdam Economic Board, particularly in charge of the circular economy;
- G. (Geanne) van Arkel, Head of Sustainable Development at Interface;

Student member:

- L.V.R. (Lennart) van Doremalen MSc, PhD student Subatomic Physics, Utrecht University.

On behalf of the NVAO, ir. S. (Lineke) van Bruggen, policy advisor, was responsible for the process coordination and dr. M.J.H. (Marianne) van der Weiden acted as the panel's secretary.

Details of the panel members' expertise are given in Annex 1 (Composition of the panel). All panel members and the secretary signed a statement of independence and confidentiality.

The panel has based its assessment on the standards and criteria described in the NVAO Assessment framework for the higher education accreditation system of the Netherlands (Stcrt. 2016, nr 69458).

The panel members prepared the assessment by analysing the documents provided by the institution (Annex 3: Documents reviewed) and formulating the issues and questions they wished to raise during the site visit. These questions were shared by e-mail before the preparatory meeting. The panel organised a preparatory meeting on 15 October 2017, i.e. the day before the site visit. During this meeting, the panel members discussed their first impressions and formulated questions for the various groups to be met during the site visit.

The site visit took place on 16 October 2017 at the Campus Fryslân of the University of Groningen. During this visit, the panel was able to discuss the formulated questions and to gather additional information during several sessions (Annex 2: Schedule of the site visit). Afterwards, the panel discussed the findings and considerations and pronounced its preliminary assessments per theme and standard. At the end of the site visit, the initial findings were presented to the institution.

Based on the findings, considerations and conclusions the secretary wrote a draft advisory report that was first presented to the panel members. After the panel members had commented on the draft report, the chair endorsed the report. On 1 November 2017 the advisory report was sent to the institution, which was given the opportunity to respond to any factual inaccuracies in the report. The institution replied on 2 November 2017. The suggested correction was adopted. Subsequently the final report was endorsed by the panel chair. The panel composed its advice fully independently and offered it to NVAO on 6 November 2017.

2.2 Panel report

The first chapter of this report is the executive summary of the report, while the current chapter is the introduction.

The third chapter gives a description of the programme including its position within the institution, the University of Groningen and within the higher education system of the Netherlands.

The panel presents its assessments in the fourth chapter. The programme is assessed by assessing the themes and standards in the Initial Accreditation Framework. For each standard, the panel presents an outline of its findings, considerations and a conclusion.

The findings are the facts as found by the panel in the programme documents and during the site visit. The panel's considerations are based on the panel's evaluations regarding these findings and their relative importance. The panel's concluding assessment is based on the considerations presented in this report.

The panel concludes the report with a table containing an overview of its assessments per standard.

3 Description of the programme

3.1 General

Country	: The Netherlands
Institution	: University of Groningen
Programme	: Sustainable Entrepreneurship
Level	: master
Orientation	: academic (wo)
Specialisation	: n.a.
Degree	: Master of Science
Location	: Leeuwarden
Study Load (EC)	: 60 EC
Mode of study	: full-time
Field of Study	: Economics

3.2 Profile of the institution

The University of Groningen was founded in 1614. It is organised in eleven faculties that offer degree programmes and courses in the fields of Humanities, Social Sciences, Economics and Business, Spatial Sciences, Life Sciences and Natural Sciences and Technology. The University distinguishes itself by focusing on three key elements: Energy, Healthy Ageing and Sustainable Society. There are 48 Bachelor's degree programmes and 167 Master's degree programmes and specialisations. The University of Groningen has about 30,000 students and employs 5,900 fte staff, including 400 full professors and 2,000 PhD students. Twenty per cent of the students come from abroad (1 September 2016). The Campus Fryslân is a Faculty dedicated to the multidisciplinary study of scientific questions connected with social and economic themes relevant to the province Friesland. The core philosophy of the Faculty involves connecting regional themes with interdisciplinary global issues.

3.3 Profile of the programme

The academic master's programme Sustainable Entrepreneurship is based on the premise that sustainable entrepreneurship must play a key role in the transformation of the current oil and gas-based economy towards a sustainable, circular society. The programme is targeted at students with an interest in sustainability, who want to develop their academic research skills in addition to leadership and entrepreneurial competences. The target group consists of students with a bachelor's degree in the domain of Business and Economics.

The one-year programme will be taught in English. The programme consists of four blocks. In each of the first three blocks, three learning trajectories are offered: research, leadership and entrepreneurship. The fourth block comprises the Sustainable Entrepreneurship Project, the graduation project with either a quantitative or a qualitative focus.

	Research	Leadership	Entrepreneurship
Block 1. Designing Sustainable Organisations	Foundations (5 EC)	Leadership (5 EC)	Strategy (5 EC)
Block 2. Implementing Sustainable Organisations	Organisations (5 EC)	Alliances (5 EC)	Sustainable Context (5 EC)
Block 3. Evaluating Sustainable Organisations	Policy (5 EC)	Performance (5 EC)	Research Methods (5 EC)
Block 4. Graduation Project	Sustainable Entrepreneurship Project (15 EC)		

4 Assessment per standard

This chapter presents the evaluation of the standards by the assessment panel. The panel has reproduced the criteria for each standard. For each standard the panel presents (1) a brief outline of its findings based on the programme documents and on documents provided by the institution and the site visit, (2) the considerations the panel has taken into account and (3) the panel's conclusion. The panel presents a conclusion for each of the standards, as well as a final conclusion.

The assessment is based on the standards and criteria described in the NVAO Assessment framework for the higher education accreditation system of the Netherlands (Stcrt. 2016, nr 69458). Fundamental to the assessment is a discussion with peers regarding the content and quality of the new programme.

Regarding each of the standards, the assessment panel gives a substantiated judgement on a three-point scale: meets, does not meet or partially meets the standard. The panel subsequently gives a substantiated final conclusion regarding the quality of the programme, also on a three-point scale: positive, conditionally positive or negative.

4.1 Standard 1: Intended learning outcomes

The intended learning outcomes tie in with the level and orientation of the programme; they are geared to the expectations of the professional field, the discipline, and international requirements.

Outline of findings

The description in the application dossier indicates that the Master's programme in Sustainable Entrepreneurship (SE) aims to support the transformation of an unbalanced world economy driven by neoclassical industrial economics to a sustainable society founded on balancing the interests of people, planet and profits. This transition would benefit from people with academic knowledge and experience who can demonstrate that sustainable business models can be financially successful as well. The aim of the programme is to educate such people.

The programme is designed to ensure its graduates develop a personal value system with respect to sustainable entrepreneurship, have acquired an academic research foundation and have developed a portfolio of leadership roles. The set of leadership roles addressed in the programme is based on the mind-sets of Gosling and Mintzberg, the seven habits of leadership defined by Covey and the seven value systems delineated by Graves:

1. Taking the lead (managing self, the reflective mind-set);
2. Forming a strategy (managing strategy, the worldly mind-set);
3. Organising (managing organisations, the analytical mind-set);
4. Directing (managing relationships, the collaborative mind-set);
5. Changing (managing change, the action mind-set);
6. Influencing (managing policy, the influencing mind-set);
7. Innovating (managing performance, the innovative mind-set).

The intended learning outcomes of the programme are grouped in five categories: subject-specific, academic research, organisation & context (new business models), communication

& sharing, and self-management. The first two categories describe the advanced and conceptual academic knowledge to be acquired and the academic skills that will enable graduates to independently design, implement and evaluate scientific research in sustainable entrepreneurship. The subject-specific learning objectives tie in with the domain specific framework that was developed for business programmes in 2011 and was endorsed by the 2013 accreditation committee of Business Administration programmes. This ensures that they are in line with academic developments in the discipline and with international requirements. The application dossier shows how the latter three categories of the learning objectives are related to the seven leadership roles. The panel concludes that the intended learning outcomes cover the programme's objectives and are of the appropriate advanced level for an academic master's programme.

The panel believes the intended learning outcomes can be geared even more strongly to the programme's sustainability and entrepreneurial focus. The panel agrees that the strong emphasis on cognitive skills is in line with the requirements of a university master's programme, but the social competences (soft skills) could be made more explicit. The panel suggests replacing the general set of leadership roles based on Mintzberg and others, by a more specific set of competences, e.g. those studied by Ploum et al. (Toward a Validated Competence Framework for Sustainable Entrepreneurship, Organisation and Environment 2017).

During the site visit the panel discussed the programme's focus and objectives with the management, the academic staff and representatives of the professional field. Initially, the panel was confused by the title of the programme: 'entrepreneurship' suggests that students will be taught to be a sustainable entrepreneur. This interpretation was reinforced by the flyer and samples of the planned communication campaign. The panel wondered how this entrepreneurial focus related to the strong focus on academic theories and research. It became clear, however, that students should be 'entrepreneurs' in the sense of having an open mind and seeing opportunities, being able to make a difference by helping organisations to make the change to sustainability. The combination of academic foundation, leadership and entrepreneurship is characteristic for the programme. The representatives of the regional organisations confirmed that this transdisciplinary approach is what they need, and that this will be helpful in the revitalisation of the region. The panel agrees with this transdisciplinary approach, but thinks it is important to ensure that prospective students know what to expect and are made aware that SE is not a programme for start-ups. The panel advises making this clear in the communication campaign, e.g. by adding a subtitle to the name of the programme.

Considerations

The panel appreciates the novel transdisciplinary approach, linking knowledge at an academic level to real-life sustainability issues of organisations. The intended learning outcomes are at the appropriate master's level and in line with the expectations of the professional field, the discipline and international requirements. The combination of cognitive and social skills is a strong point, as is the solid network of regional companies and organisations. The panel notes three points of improvement. First, it is important to clearly explain what is meant by the term 'entrepreneurship' in the programme's name, and, second, to manage the students' expectations. Third, the intended learning outcomes can be geared more strongly to the sustainability focus by including more knowledge acquisition on this field of expertise and adopting a more specific social competence framework related to sustainability entrepreneurship. Notwithstanding these

recommendations, the panel is convinced that SE will be a valuable programme, educating the innovators of the future.

Conclusion

The programme meets standard 1.

4.2 Standard 2: Teaching-learning environment

The curriculum, the teaching-learning environment and the quality of the teaching staff enable the incoming students to achieve the intended learning outcomes.

Outline of findings

The one-year curriculum consists of four blocks of 15 EC. Each of the first three blocks consists of three courses of 5 EC. In the last block, the students work on their graduation project, the Sustainable Entrepreneurship Project. Block 1 teaches on designing SE, block 2 on implementing SE and block 3 on evaluating SE. Within each block, students follow a course on research (research methods and research skills), one on leadership (learning about leadership traits and developing themselves) and one on entrepreneurship (strategy and tactics). Each course consists of an academic foundation and a lab (research lab, leadership lab and entrepreneurship lab respectively), and focuses on one of the leadership mind-sets.

At the start of the programme, students select a key question and case, which may originate from a regional or national company, policy institute or social organisation. This link with a specific issue and organisation will help the students to translate their academic knowledge to real-life practice, culminating at the end of the programme in their graduation project. The panel considers the connection of students with the regional network a strong point of the SE programme. In the interview during the site visit, the representatives of the professional field confirmed their interest in the programme and their enthusiasm to work together with the SE staff and students.

The programme structure is translated into a weekly schedule. Each day has its own focus: Monday is Academic Day, Tuesday is Leadership Day and Wednesday is Entrepreneurship Day. Each day has a morning session on Academic Foundations and its own lab session in the afternoon. Thursday is Community Day, with a guest lecture in the morning and a meeting with the student's host organisation in the afternoon. Friday is reserved as a day for self-study. Attendance of meetings is mandatory. On the one hand, it is surprising to see such a strict schedule in a master's programme, on the other hand, the panel agrees that this is in line with the aim to build an academic learning community of staff, students and stakeholders.

A possible drawback of the tight programme structure is that it does not provide the possibility of elective courses. The panel considers this acceptable in the start-up phase of the programme, and recognises that students have freedom of choice when they select their key topic and host organization. For the future, however, allowing students to select courses outside the SE programme may be a fruitful option, especially if it is linked to cooperation with other faculties of the University of Groningen or with other universities with comparable programmes.

A wide range of teaching methods will be used: working groups, paper discussions, interactive lectures, literature study, tutorials, consultancy sessions and presentations. Within the courses, students work on assignments individually (leadership), in pairs (research) or in a team (entrepreneurship). The panel considers the didactic approach to be creative and conducive to the programme's learning objectives.

The panel has studied the course descriptions and looked into the readings (books and articles) for each course that were made available during the site visit. The panel considers the study materials to be well-chosen, both substantively and in relation to the required master's level. They reflect the current state of the debate in sustainability and entrepreneurship. The panel believes that the programme could benefit from a stronger focus on knowledge acquisition in the field of sustainability, in which also the natural science foundation of sustainability is highlighted.

The programme is a selective Master's programme, with thirty places in 2018 and forty for 2019 onwards. Students are selected on the basis of their previous study and their motivation. The target group consists of bachelor graduates with a degree in economics and business. Knowing that sustainability is not a substantial topic in these bachelor programmes, the panel wondered if incoming students will have sufficient background knowledge for the SE programme. An introductory course in sustainability is not envisaged and the panel agrees that the strict programme structure makes it difficult to allow such an additional course, but a remedial (summer) course or at least a reading list could be necessary to help students to prepare for the programme. During the site visit, the panel learnt that this is probably a temporary problem. Campus Fryslân, where the SE programme will be organised, will host an interdisciplinary bachelor's programme Global Responsibility and Leadership, inspired by the UN Agenda for Sustainable Development. The SE programme management expects that the master's programme SE will be an attractive option for these bachelor graduates. The panel agrees with this assumption. In the longer run, the panel advises broadening the intake of students to include graduates with a background in natural sciences and technology, because addressing sustainability issues goes beyond economics and the social sciences. Graduates from the universities of applied sciences in Friesland and Groningen may be interesting target groups as well.

Campus Fryslân will dedicate 2 FTE in teaching capacity for the staffing of the programme. With an inflow of thirty students in the first year, the staff-student ratio will be 1:15. The teaching staff will consist of about five or six staff members in part-time employment. During the site visit, the panel met with five prospective staff members and with five PhD students. All staff members are experts in sustainable entrepreneurship and/or in one of the fields related to the business model, such as strategy, organisation, alliances or policy, reflected in research and/or consultancy experience. The PhD students will be involved as tutors and teaching assistants. Their network and contacts are not limited to the Centre of Sustainable Entrepreneurship, they are embedded in the broader context of the University of Groningen. The panel noted with appreciation that both the senior staff and the PhD students showed their eagerness to be involved in the SE programme and that they have already grown into a cohesive team.

The panel has looked into the CVs of the staff members. All are qualified teachers and researchers and have international experience in various fields related to sustainable entrepreneurship. Their networks are valuable for the SE programme. An important part of the staff's network comes from the Centre for Sustainable Entrepreneurship, a network of

stakeholder experts from sustainable enterprises both in Friesland and beyond. The panel is convinced that students will benefit from this extensive network. The panel advises developing an alumni policy, in order to continually expand the network as soon as the programme has delivered its first graduates.

The application dossier lists the roles and responsibilities of staff in coordinating the teaching programme, and mentions, in addition to the academic scholars and field experts, the programme director, block coordinators and course coordinators. The panel has the impression that this is a rather heavy structure for a relatively small group of staff and students. The strong interaction and coordination will certainly have been very useful in the preparation phase and will have contributed to the creation of a team with a common view on the programme. For the next phase, the panel advises investigating if a lighter structure may be sufficient.

Campus Fryslân will be housed in De Beurs, located in the centre of Leeuwarden. The University of Groningen will renovate this building extensively and in a sustainable manner. By September 2018 it will accommodate the bachelor's programme in Global Responsibility and Leadership, several master's programmes (including SE) and about fifty PhD students. The purchase of this building is subsidised with substantial grants from the city of Leeuwarden and the province of Friesland, based on an agreement of commitment between the University of Groningen, the city and the province to at least the year 2030. The panel considers this a strong basis for the sustainability of the programme and the cooperation with its environment.

Considerations

The panel considers the curriculum to be well-balanced and of an appropriate level. The weekly structure and mandatory attendance will help to create a genuine learning community. The interaction with local and regional businesses and organisations is a strong point, as are the quality and enthusiasm of the teaching team. The PhD students work together well as a group and will provide an easy link for students with the more senior staff. The facilities will be very suitable as well, provided the building De Beurs can be ready in time for the start of the programme. The panel expects that the bachelor's programme Global Responsibility and Leadership and the SE master's programme at Campus Fryslân will strengthen each other and will lead to an intake of students with more relevant background knowledge than students who originate from the more traditional bachelor programmes in economics and business. Based on the interviews during the site visit, the panel concludes that the descriptions in the application dossier are based on the current situation, without anticipating on the broader possibilities after three to five years. The panel's initial hesitations about the prior knowledge of incoming students, the almost exclusive focus on economics instead of a broader view including other disciplines and the lack of electives in the curriculum, were allayed in the course of the site visit. They should be considered as teething problems and will be overcome in due time.

Conclusion

The programme meets standard 2.

4.3 Standard 3: Assessment

The programme has an adequate system of student assessment in place.

Outline of findings

Within the SE programme, assessment has two functions: (1) providing feedback to the students, and (2) assessing whether the intended learning outcomes have been achieved. Students are frequently provided with feedback on their performance, both from their teachers and from fellow-students and stakeholder members. For the assessment of intended learning outcomes, the programme uses various assessment methods, not only conventional instruments such as written exams and essays, but also presentations, portfolios, case studies, the design of a business model or research project.

The panel received examples of an interesting innovation, i.e. the two-stage exam. In these exams, students first individually answer and hand in all essay questions. This counts for 85 per cent of the exam grade. For the additional fifteen per cent, students are organised into groups of four to work on the second stage of the exam. In this exam group, the students review and again answer the exam questions. They receive immediate and specific feedback from their peers, which enhances the learning effects of the written exam. The panel agrees that this is an innovative and worthwhile assessment form. Unfortunately, the panel found the level of the questions in the examples provided too low. They were focused on the reproduction of knowledge, which is at bachelor rather than at master level, and did not test the students' analytical and reflective skills. The discussions in the exam group do not lead to these higher cognitive levels if the questions do not ask for this. The panel strongly believes that the level of the two-stage exams should be raised to the appropriate master level.

The achievement of the intended learning outcomes is assessed in the graduation project, the Sustainable Entrepreneurship Project. Students independently design, implement and evaluate scientific research in sustainable entrepreneurship, based on the key issue and with the stakeholder they have selected in the beginning of the SE programme. The project builds on all previous courses and allows students to choose a research method that fits their research problem, with either a quantitative or a qualitative focus. During this project, students will have weekly meetings with coaches, mentors and stakeholders. The project is assessed using the University's template for final projects. The supervisor will be the first assessor. After approval by the first assessor, the course coordinator assigns a second assessor. Together, the first and the second assessor will decide on the grade. The procedure and the assessment form will be published in a handbook and will be available for the students.

The Examination Board plays an important role in the quality assurance of formal assessment. The SE programme will have its own Examination Board, consisting of four members, including one external member and one staff member of the programme. In the application dossier, the programme describes that the Examination Board will continuously review and determine the quality of the examiners and the exams. In each academic year, the Board will review and assess the assessment plan. Examiners are appointed by the Examination Board. Examinations are evaluated with answer keys and scoring rubrics. All exams are peer-reviewed before they are administered and all formal assessments are

evaluated and graded by at least two assessors or examiners. Students are provided with a course guide at the beginning of each course, which includes the goals of the course and the exam formats and rules.

During the site visit, the panel met with the intended chair, external member and secretary of the Examination Board. From this interview, the panel concludes that the Examination Board is well-prepared for its role and has already developed clear ideas about how assessment in the SE programme should be organised. The main issues identified by the Examination Board are (1) the relationship with stakeholder organisations in the graduation project, emphasising the importance that the stakeholder's question can be formulated at a sufficiently theoretical and reflective level, (2) the ratio of individual versus group assessment (80-20) and (3) the clear formulation of learning objectives, including the soft skills, to properly reflect the SE programme goals. The Board has commented on the proposed Teaching and Examination Regulations and suggested a number of amendments. These suggestions answer some of the panel's questions and inspire confidence that the quality of assessment will be monitored conscientiously.

In the initial phase of the programme, the Examination Board intends to monitor the assessment closely. The Board has not yet seen concrete examples of exams, such as the two-stage exams provided to the panel. They have, therefore, not yet been able to comment on the academic level of these exams. Because the panel has expressed some doubts about this (see above), the panel advises to monitor this especially.

Considerations

The panel thinks the assessment plan relates well to the SE learning objectives. The variety of sometimes quite innovative assessment methods reflects the range of skills that graduates will need in their future career. The Examination Board is not yet fully operational, but the outcomes of its first meeting and the discussion during the site visit show that it is qualified and well-prepared for its task. The procedures for assessment are clear and will ensure the validity, reliability and transparency of the assessments. The panel is not convinced that the questions in the two-stage exams, examples of which were presented during the site visit, are at the appropriate master level. They should be adjusted in order to test the students' analytical and reflective skills rather than knowledge reproduction. Based on the discussion about this issue with the programme staff during the site visit, the panel expects that this will be remedied in time. Also, the Examination Board will, in the course of its work, check the level of all assessments. Therefore, notwithstanding this critical comment, the panel concludes that the assessment system is adequate.

Conclusion

The programme meets standard 3.

4.4 Qualification and field of study (CROHO)

The panel advises to award the degree 'Master of Science' to the wo-master Sustainable Entrepreneurship. The panel supports the programme's preference for the CROHO field of study 'Economics'.

4.5 Conclusion

The panel has found that the intended learning outcomes (standard 1), the teaching-learning environment (standard 2) and the assessment system (standard 3) meet the criteria. The intended learning outcomes reflect the programme's aims and vision and are in line with the expectations of the professional field, the discipline and international requirements. It is important to ensure that prospective students know what to expect and are made aware that, despite the word 'entrepreneurship' in the programme title, SE is not a programme for start-ups. The curriculum, the teaching methods, the quality of the teaching staff and the facilities enable the incoming students to achieve the intended learning outcomes. The link with regional stakeholders is a strong point. The assessment system is well-designed and the Examination Board is qualified and prepared for its task. The level of the two-stage exams should be raised to be in line with the required master level. On the basis of the outcomes per standard, the quality of the programme is assessed as positive.

4.6 Recommendations for further improvement

1. Make sure that prospective students know what to expect of the programme and are made aware that SE is not a programme for start-ups. Make this clear in the communication campaign, e.g. by adding a subtitle to the name of the programme.
2. Ensure that all assessments are of the required master level and use the Examination Board's expertise to monitor this.
3. Adopt a more specific competence framework, better geared to the sustainability focus of the programme.
4. Take steps to guarantee that all incoming students have sufficient knowledge of sustainability. In the longer run, widen the range of incoming students from economics and business to other disciplines, such as the natural sciences and technology.

5 Overview of the assessments

Standard	Assessment
Intended Learning outcomes <i>Standard 1: The intended learning outcomes tie in with the level and orientation of the programme; they are geared to the expectations of the professional field, the discipline, and international requirements.</i>	Meets the standard
Teaching-learning environment <i>Standard 2: The curriculum, the teaching-learning environment and the quality of the teaching staff enable the incoming students to achieve the intended learning outcomes.</i>	Meets the standard
Student assesment <i>Standard 3: The programme has an adequate system of student assessment in place.</i>	Meets the standard
Conclusion	Positive

Annex 1: Composition of the panel

Prof. dr. P. C. (Peter) van der Sijde (chair)

Prof. dr. P.C. (Peter) van der Sijde is professor of organization, entrepreneurship and technology in the Faculty of Science (Science, Business & Innovation) and the Faculty of Social Science (Department of Organization Sciences) at the VU University Amsterdam. His emphasis in research is on entrepreneurship, university-industry interaction and knowledge valorization. Before this he was associate professor at the VU Amsterdam in the Department of Organization Sciences, and senior researcher and staff member of the Dutch Institute for Knowledge Intensive Entrepreneurship (Nikos) at the University of Twente (Enschede, NL). In the period 2002 – 2008 he was Visiting Professor of Entrepreneurship at the Ulster Business School at the University of Ulster (UK). He held (2003 – 2007) a chair (as “lector”) in Knowledge Innovative Entrepreneurship at the Saxion University for Applied Sciences (Enschede, NL). In the period July 2014 till May 2015 he was the Educational Director of the BCO (Organization Sciences) Master programme (in the Faculty of Social Science). Since March 2017 he is Educational Director of the SBI (Science, business & Innovation) Master programme in the VU Faculty of Science.

Prof. dr. J.M. (Jacqueline) Cramer

Prof. dr. Jacqueline Cramer is a strategic advisor of the Utrecht Sustainability Institute and in charge of the circular economy activities for the Amsterdam Economic Board. Moreover, she is the managing director of the consultancy firm ‘Sustainable Entrepreneurship; strategy and innovation consulting’, from which she worked as a senior advisor to more than 150 companies on the implementation of sustainable entrepreneurship and CSR. Before, she was the Cabinet Minister of Housing, Spatial Planning and the Environment of the Netherlands. Cramer has been a professor in the area of environmental management and sustainable innovation since 1990. Next to this, she was and still is member of various (inter)national advisory boards of the government, industry and non-profit organisations – including crown member of the Dutch Social-Economic Council, member of the Advisory Board of the World Wide Fund for Nature (NL), member of the non-executive board of Shell Netherlands and FMO (Finance for Development Bank), and presently among others Ambassador for the Circular Economy in the Metropolitan Area of Amsterdam, Chairman of the Plastic Soup Foundation and of the Dutch ESCo (Energy Service Companies) network and the International CSR banking agreement, a consortium of Dutch banks, unions, NGOs and government that aim to ensure respect for human rights in worldwide investment and financing matters of the respective banks.

G. (Geanne) van Arkel

Geanne is working as Head of Sustainable Development for Interface, worldwide recognised as a leader in the field of sustainability. She is a textile engineer, currently following an online master in Biomimicry at the Arizona State University. She works on embedding sustainability within organisations and has been doing so since 2003. She sees sustainable development as a key driver for innovation, believing in full product transparency based on life cycle, and the need for cross-sectoral cooperations to realise a low carbon circular and biobased economy. Creating sustainable value by addressing both ecological and societal issues in inclusive business models, related to the core business of a company, is the only way to thrive. She actively engages within networks and transition groups with businesses and governments on both national and EU level to accelerate sustainable development. She regularly gives guest lectures and in-company sessions on

sustainability, to create an inclusive circular economy by learning from nature and addressing the Sustainable Development Goals.

L.V.R. (Lennart) van Doremalen MSc (student member)

Lennart van Doremalen is a PhD candidate at the institute of Subatomic Physics at Utrecht University. He studied the research master 'Experimental Physics' and the bachelor 'Physics and Astronomy' at the same university. During his studies, he was co-founder of the student party Lijst Helder and student representative for this party in UU's University Council. From 2009 until 2010 he was the student board member of the Department of Physics. In 2012, he organised the International Conference of Physics Students (ICPS) in collaboration with fellow students. In addition, Lennart was an active member of the national student union LSVb, the local student union VIDUIS, and fulfilled several functions as board member or advisor next to his studies. He is also co-founder of the Utrecht municipality council party Student & Starter.

Assisting staff:

- Dr. Marianne van der Weiden, secretary to the panel
- Ir. Lineke van Bruggen, policy advisor NVAO and process coordinator

All panel members and the secretary signed a declaration of independence and confidentiality prior to the assessment process.

Annex 2: Schedule of the site visit

The panel visited the Campus Fryslân of the University of Groningen on 16 October 2017 as part of the external assessment procedure regarding the wo-master Sustainable Entrepreneurship.

- 08:30 – 09:15 Reception and preparatory panel meeting** (*confidential*)
- 09:15 – 10:00 Representatives of the management**
Drs. Piet Bouma, Directeur Bedrijfsvoering Campus Fryslân
Prof. Dr. Gjalt de Jong, Opleidingsdirecteur Sustainable Entrepreneurship,
Hoogleraar Sustainable Entrepreneurship in the Circular Economy
- 10:15 – 11:15 Teaching staff**
Prof. Dr. Gjalt de Jong, Opleidingsdirecteur Sustainable Entrepreneurship,
Hoogleraar Sustainable Entrepreneurship in the Circular Economy
(Foundations, Organization)
Dr. Elena Cavagnaro, Lector Sustainability in Hospitality and Tourism
(Leadership)
Dr. Rosalinde Klein Woolthuis, UD Sustainable Innovations and societal
transitions/lead scientist NO (Context, Policy)
Drs. Hans van Polen, Docent Economics and Business (Methods,
Leadership Project)
Dr. Thomas Long, UD Sustainable Entrepreneurship (Strategy, Alliances,
Performance)
- 11:30 – 12:00 Representatives of the Examination Board**
Dr. Elena Cavagnaro, Lector Sustainability in Hospitality and Tourism
(beoogd voorzitter)
Dr. Ellen Jansen, UHD Gedrags- en maatschappijwetenschappen (extern
lid)
Ir. Chantal Vrijhof, Beleidsadviseur Campus Fryslân (beoogd secretaries)
- 12:30 – 12:45 Lunch and panel meeting** (*confidential*)
- 12:45 – 13:30 Tour of the facilities**
Drs. Piet Bouma, Directeur Bedrijfsvoering Campus Fryslân
Drs. Ingeborg Hollak, RuG Vastgoed- en Investeringsprojecten
Prof. Dr. Gjalt de Jong, Opleidingsdirecteur Sustainable Entrepreneurship,
Hoogleraar Sustainable Entrepreneurship in the Circular Economy
- 13:30 – 14:00 Representatives from the professional field**
Dhr. Anne Jan Zwart, Directeur Ecostyle
Dhr. Enno van der Werff, Directeur/bestuurder Stichting Kinderopvang
Stad Groningen
Prof. Dr. Gertjan Euverink, Hoogleraar Faculty of Science and Engineering
RuG
Mevr. Geesje Duursma, Directeur de Pleats
Dhr. Jelmar Helmhout, Hoofd Communicatie Omrin

Mevr. Annette Waning, Hoofd CSR & Impact Vebego International,
Directeur Vebego Foundation
Mevr. Mia Schaafsma, Teammanager Strategy and Environment Elkien
Mevr. Deborah Groeneweg, Projectmedewerker Centre of Sustainable
Entrepreneurship

14:15 – 14:45 PhD students

Mevr. Margo Enthoven, PhD research, tutor, teaching assistant
Mevr. Femke Vrenegoor, PhD research, tutor, teaching assistant
Mevr. Angela Greco, PhD research, tutor, teaching assistant
Dhr. Hendrik Thelken, PhD research, tutor, teaching assistant
Mevr. Manon Eikelenboom, PhD research, tutor, teaching assistant

14:45 – 15:30 Panel meeting (*confidential*)

15:30 – 15:45 Representatives of the management

Drs. Piet Bouma, Directeur Bedrijfsvoering Campus Fryslân
Prof. Dr. Gjalte de Jong, Opleidingsdirecteur Sustainable Entrepreneurship,
Hoogleraar Sustainable Entrepreneurship in the Circular Economy

15:45 – 16:30 Panel meeting (*confidential*)

16:30 Presentation of initial findings

Annex 3: Documents reviewed

Programme documents presented by the institution

- Information dossier
- Appendices to the information dossier:
 - Teaching and Examination Regulations
 - CV's of staff members
 - Job descriptions of further staff to be hired
 - Aanvraagformulier Nieuwe opleiding macrodoelmatigheidstoets
- Documents made available during the site visit
 - Curriculum overview and weekly programme schedule
 - Flyer Master Sustainable Entrepreneurship
 - Monitor Duurzaam Ondernemerschap
 - Brochure Centre of Sustainable Entrepreneurship (CSE)
 - Article 'Friese bedrijven: 7 op duurzaamheid'
 - Dublin descriptors in relation to Master Sustainable Entrepreneurship
 - Assessment plan 2018-2019
 - Rules and Regulations for the Examination Board for academic year 2018-2019
 - Strategic Development Plan Sustainable Entrepreneurship 2017-2018
 - CSE Spotlights
 - CSE Working Papers
 - CSE Monographs
 - Examples of two-stage exams and keys
 - Examples of assessment forms various labs and projects
 - Course materials (books and articles)

Annex 4: List of abbreviations

ba	bachelor
CSE	Centre of Sustainable Entrepreneurship
EC	European Credit
hbo	hoger beroepsonderwijs
ma	master
NVAO	Nederlands-Vlaamse Accreditatieorganisatie
SE	Sustainable Entrepreneurship
wo	wetenschappelijk onderwijs

The panel report was ordered by NVAO for the initial accreditation of the programme wo-master Sustainable Entrepreneurship of the University of Groningen.

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