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MSc Sustainable Entrepreneurship

University of Groningen
Campus Fryslân

Advisory report of the assessment of the existing programme
Site visit: 17 October 2024

Colophon

Institution and programme

University of Groningen
Campus Fryslân Leeuwarden
Institutional Audit: yes

Programme: MSc Sustainable Entrepreneurship
Site: Leeuwarden
Mode: fulltime
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Assessment panel

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Summary

On 17 October 2024 an assessment panel of AeQui has visited the MSc Sustainable Entrepreneurship offered by the University of Groningen at Campus Fryslân in Leeuwarden. This assessment is part of a broader cluster evaluation of business administration programmes in the Netherlands. The panel's overall judgement of the programme is **positive**.

Intended learning outcomes

The MSc Sustainable Entrepreneurship is a relatively young programme, launched in 2018, designed to equip students with an entrepreneurial mindset focusing on social, environmental, and economic sustainability. The programme uniquely combines theoretical perspectives with practical applications and encourages students to develop competencies in problem-solving, systems thinking, and leadership. The panel acknowledges the multidisciplinary and transdisciplinary design of the programme, incorporating elements from business, management, economics, sociology, psychology, and behavioural sciences. The intended learning outcomes have been adjusted since the initial accreditation, now presenting a refined set of ten learning outcomes across subject-specific knowledge, academic research, and self-development. The panel confirms that the intended learning outcomes align with the Dublin Descriptors at master level and the Sustainable Entrepreneurship Education competencies, reflecting the programme's academic orientation and sustainability focus. The panel commends the programme team for actively integrating feedback from previous assessments and its involvement in international projects related to sustainable entrepreneurship education. While the end qualifications are clear and appropriate, the panel suggests to incorporate more explicitly the programme's unique selling propositions in the (intended) learning outcomes. The panel thus concludes that the programme **meets** this standard.

Teaching-learning environment

The MSc Sustainable Entrepreneurship is a one-year full-time master programme, structured into four blocks of 10 weeks, with nine courses and a 15 EC Sustainable Entrepreneurship Project (SEP). The programme offers a coherent progression from theoretical foundations to practical applications, with a strong focus on individual leadership and sustainability challenges. The panel observed that the curriculum is well-structured and effectively linked to the learning outcomes. Students are exposed to both theoretical concepts and practical tasks, supported by laboratory sessions and academic debates. The extra-curricular Sustainable Startup Academy offers additional entrepreneurial training for interested students. The language of instruction is English, aligning with the international focus of the programme and the availability of sustainability-related literature. The panel appreciates the rationale behind this choice and endorses also the English title of the programme. The teaching approach is characterised by small-scale, interactive education, with a close-knit learning community and strong student-staff relationships. While the panel considers this a strength and recognises that it fosters a supportive learning environment, it should not refrain the programme from actively seeking to address the flip-side of small-scale education. The panel also noted areas for improvement, such as the balance between academic and practical components in the SEP, the inclusion of methodological training in the curriculum, and the stringency of admission requirements to ensure all students

enter with sufficient foundational knowledge. The panel thus concludes that the programme **meets** this standard.

Student assessment

The assessment system of the MSc Sustainable Entrepreneurship is well integrated in the broader assessment policies of both faculty and university. The programme has a comprehensive assessment plan ensuring alignment between course objectives and intended learning outcomes. Safeguarding the assessment quality of the programme is in competent hands of the Board of Examiners. The panel observed positive developments in the diversification of assessment methods, including more formative assessments and mid-term evaluations. However, most courses still rely heavily on essay exams and assignments. While this approach effectively measures theoretical understanding, the panel encourages the programme to further expand formative assessment methods. Furthermore, the panel noticed that almost all students pass individual exams right away and that there is only a limited variation in the course results. The essay exams it reviewed on site showed that there is definitely room to include also some higher level questioning, which in turn may result in more differentiated exam results. Moreover, the SEP assessment was recently revised to include both academic and practical outputs. The panel supports this dual structure but noted when it reviewed a sample of final project assessments that there are inconsistencies in the weighting and assessment criteria, that the feedback in the assessment forms was variable in quality and depth, and that grades are relatively high. The panel therefore invites the programme team to address these findings and the Board of Examiners to actively follow-up the actions undertaken and the generated results. The panel thus concludes that the programme **meets** this standard.

Achieved learning outcomes

The panel reviewed a representative selection of Sustainable Entrepreneurship Projects (SEPs) and concluded that the projects meet the academic standards expected at master level. The topics addressed relevant sustainability challenges and demonstrated a balance between theory and practice. However, some SEPs displayed limited theoretical depth, methodological rigor, and/or reflection on transdisciplinary aspects. Hence, the panel sees potential for raising the quality bar in the final projects and encourages the programme team to evaluate its research methods and methodological learning line, as well as the balance between the practical and academic outputs. The programme systematically tracks the professional whereabouts of its alumni, which reveal that graduates secure positions that are well aligned with the programme objectives, such as sustainability consultants, impact managers, policy advisers, and entrepreneurs. Many alumni maintain active connections with the programme, contributing as guest lecturers, advisory board members, or PhD candidates. The panel thus concludes that the programme **meets** this standard.

Suggestions

With an eye on the future, the panel offers the following suggestions for consideration:

- Incorporate the entrepreneurial mindset, the action-oriented focus and the multi/transdisciplinary design more explicitly in the intended learning outcomes;
- Sharpen the admission requirements and expand the pre-master programme;
- Enhance the research learning line to include a diversity of methods, methodological considerations, and critical reflection;
- Further diversify assessment methods with particular attention to formative assessment;

- Raise the level of course exams where this seems fit;
- Enhance the quality of the SEP assessments 'new style';
- Increase the capacity of the Board of Examiners;
- Review the SEP trajectory and its outputs with a view to better support students in the different stages of their research, and enhance the overall level of the final projects.

All standards of the NVAO framework have been positively assessed. On this basis, the panel provides a [positive recommendation](#) regarding the accreditation of the MSc Sustainable Entrepreneurship.

On behalf of the entire site visit panel,
Utrecht, January 2025

Eric Dooms
Chair

Mark Delmartino
Secretary

Introduction

Profile

The Campus Fryslân currently offers five degree programmes. The MSc Sustainable Entrepreneurship is a young programme: it started in September 2018 and is offered at Campus Fryslân in Leeuwarden, the eleventh and newest faculty of the University of Groningen. The one-year full-time 60 EC master in Sustainable Entrepreneurship is taught by a small but diverse staff team and attracts yearly around 30 Dutch and international students with different educational backgrounds. Its programme director is responsible among others for the coherence of the curriculum, the intended learning outcomes and their assessment. The programme includes perspectives on social, environmental and economic sustainability. Students are educated about the role entrepreneurial action can play in transitioning to a more sustainable economy and society. Throughout the programme, students acquire competencies that foster an entrepreneurial mindset, such as problem-solving, systems thinking, and personal and professional leadership. The programme quality is safeguarded by a faculty-wide Board of Examiners, a dedicated Programme Committee of students and staff, and a Board of Advisers who represent the entrepreneurial and governance system in the region.

The assessment

The external assessment of this programme is part of a wider *wo-Bedrijfskunde* cluster visit involving 20 degree programmes at eight higher education institutions in the Netherlands. The University of Groningen has commissioned AeQui to carry out the assessment. Prior to the visit, a preparatory meeting with programme representatives has taken place. In collaboration

with the programme, AeQui assembled an independent and knowledgeable panel (see Appendix 1). The panel explicitly oriented itself to the cluster in which the master programme Sustainable Entrepreneurship is placed.

The external assessment was conducted based on the Accreditation Framework for Higher Education in the Netherlands, and according to the programme outlined in Appendix 2. The University of Groningen has a positive institutional audit decision, and therefore the panel assessed four standards of the evaluation framework. At the initiative of the programme, a development meeting took place at the end of the site visit. The results of this development meeting have not affected the assessment presented in this report.

During the previous accreditation round, the then panel made recommendations for further development. The actions taken in response by the programme are listed in Appendix 3. The panel has integrated this follow-up into its considerations for the current assessment.

The panel conducted the assessment independently, receiving the necessary information to arrive at a judgement. The materials reviewed by the panel are listed in Appendix 4. At the end of the site visit, the panel informed the programme and institutional representatives about its findings, considerations and conclusions. A draft version of the underlying report was sent to the programme, whose response was incorporated into this final version of the report.

Intended learning outcomes

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.

Findings

Profile

The master Sustainable Entrepreneurship encourages students to develop an entrepreneurial mindset. The discipline of entrepreneurship is characterized by the duality of learning 'about' entrepreneurship, i.e. the academic theory, and learning 'for' entrepreneurship, i.e. acquiring the skills to take entrepreneurial action. The panel gathered from the written materials and the discussions on site that the programme addresses both components as it wants students to analyse and apply entrepreneurial processes and actions.

The domain of sustainable entrepreneurship is relatively new yet growing fast. The common thread within these developments is that the master programme prepares students to solve problems concerning sustainability and (environmental/societal) transitions. The panel was informed that the programme does not adopt one particular definition of sustainable entrepreneurship but that its staff is contributing considerably to developing the field of sustainability entrepreneurship through academic publications and PhD research.

Combining sustainability and entrepreneurship, the programme aims to educate students about transitions more broadly, and about the role entrepreneurial action can play in transitioning to a more sustainable economy and society. Given its combined focus on theory and practice, the programme is designed to be multidisciplinary - featuring elements of business, management, economics, sociology, psychology and behavioural sciences - and transdisciplinary, crossing

university borders and involving public and private for profit and non-profit organisations and institutions.

The master Sustainable Entrepreneurship is relatively young and started in September 2018 as one of the first programmes of its kind in the Netherlands. Currently, there are several degrees with comparable aims and characteristics in the Netherlands and abroad. According to the self-evaluation report, the programme at Campus Fryslân stands out because of its small-scale character, its emphasis on entrepreneurship in different contexts and its focus on transdisciplinary working and individual leadership.

The discussions on site convinced the panel of the veracity and relevance of the programme profile. It appreciates in particular the programme's multidisciplinary and transdisciplinary approach and its focus on instilling an entrepreneurial mindset with students. Recognising the unique selling propositions of the programme, the panel noticed that the programme manages to attract a diverse student group who have a clear idea of what they sign up for and end up in different professional roles (entrepreneur, sustainability consultant, impact manager, policy advisor) that are connected to the specific profile of the programme.

Nonetheless, students and alumni indicated to the panel – and programme staff acknowledged – that sustainable entrepreneurship as a discipline requires further explanation and contextualisation towards both (potential) students and (potential) employers. The panel welcomes the efforts the programme has already taken in this area and encourages the team to further

sharpen the message on what sustainable entrepreneurship stands for at Campus Fryslân towards potential applicants, during the curriculum, and in their communication to external stakeholders in the region and beyond.

Intended learning outcomes

There is no domain-specific reference framework for sustainable entrepreneurship. Since the establishment of the programme, the staff team has gone at lengths to stay informed of – and contribute to – developments in the field of sustainable entrepreneurship education (SEE). As part of an Erasmus+ project, the team was involved in a literature review that demonstrated a general consensus on SEE learning outcomes and eventually led to a set of six competencies:

- interpersonal competence – ability to communicate in transdisciplinary multi-stakeholder networks;
- strategic competence - leadership (creativity & innovation) and managerial (planning & control) skills;
- systems thinking - identify and analyse sub-systems across relevant domains;
- opportunity recognition - finding solutions for sustainability problems; discovery and creation;
- anticipatory thinking - ability for intergenerational thinking and social/political forecasting;
- normative competence - putting sustainability values at the core of entrepreneurial decision making.

The panel noticed that the intended learning outcomes have been adjusted considerably since the initial accreditation in 2017, when the master consisted of 23 exit qualifications organised in five categories: subject-specific, academic research, organisation & context, communication & sharing, and self-management. Further to the recommendations of the initial

accreditation panel and of the mid-term review in 2022, the programme learning outcomes (PLO) have been reduced in number, and were reformulated. The current set of ten learning outcomes (organised in three categories: subject-specific, academic research, and communication & self-development) combines both lower and higher level competencies of Bloom's taxonomy and is more specific with regard to knowledge acquisition in the fields of entrepreneurship and sustainability. Moreover, the panel acknowledges that the learning outcomes align with the Dublin Descriptors and the above-mentioned SEE competencies.

The panel applauds the efforts of the programme team in considering the advice of the initial accreditation and midterm review panels, and in implementing their recommendations in a timely manner. Moreover, it welcomes the involvement of the team in transnational projects, as well as its contribution to the field of sustainable entrepreneurship education. In sum, the panel establishes that the current set of learning outcomes reflects the domain (sustainable entrepreneurship), level (master) and orientation (academic) of the programme.

Notwithstanding the above-mentioned efforts of the team and the established quality of the learning outcomes, the panel does see room for a further refinement of the end-level qualifications. In fact, the panel noticed that the entrepreneurial mindset, the action-oriented scope and the multi/transdisciplinary design of the programme can be more explicitly incorporated in the learning outcomes. Furthermore, the programme team may want to clarify how the current PLO 1 (on knowledge and understanding of theories) is aligned with the Strategic competence and Opportunity recognition of the SEE framework.

Professional Field

The panel gathered from the written materials and the discussions on site that Campus Fryslân is well embedded in the Northern region of the Netherlands and the province of Friesland. The province aims to be the frontrunner in developing solutions for a circular economy; educational institutions, governmental agencies, and businesses join forces in a regional ecosystem for sustainability. In 2023, educational institutions in Friesland and the province of Friesland signed a collaboration agreement (Onderwijsakkoord Fryslân) to intensify their collaboration in education. Campus Fryslân and the master Sustainable Entrepreneurship play an important role in this ecosystem as they provide academic/scientific input to the discussion and deliver graduates to help boost the economy and thus the viability of the region/province.

The master Sustainable Entrepreneurship features an Advisory Board. The board consists of eight members – some have been involved in the initial accreditation process, others joined more recently – who are representative for the sustainability ecosystem in the region. Right from the start, the Advisory Board has been a sparring partner for the programme director and it continues to play an important role as sounding board. It meets twice per year and advises on the programme's fit with the needs of, and competencies required on, the labour market. In this regard, the Advisory Board has provided valuable advice when the programme's intended learning outcomes were being reformulated. Another advice was/is to cherish the programme's combination of business, sustainability and English language as it prepares graduates not only for employment with major companies in big cities, but also with SME's with an international outlook in the region: in the years to come smaller enterprises will need to comply with sustainability regulations, and are/will be

looking for graduates with such profiles. One member mentioned to the panel that because of the ecosystem in the region, including the programme and the campus, his international company decided to pick Leeuwarden as location for the Netherlands.

The discussion on site with the Advisory Board confirmed the panel's initial impression that it constitutes an important sounding board for the programme that continues to provide relevant advice. Moreover, the panel noticed that the board members are committed to the programme, the campus and the development of the sustainability/circular economy eco-system in the region/province. After its meeting with the advisory board, the panel got even more convinced that this programme has a role to play in, and impacts on, the development ambitions of the Northern region and the province of Friesland.

Considerations

Based on the above-mentioned findings, the panel considers that the master Sustainable Entrepreneurship has a clear profile, features proper learning outcomes, and is well embedded in the region and the province.

The panel commends the programme team for the changes it implemented following the recommendations of the initial accreditation panel and the midterm review. It noticed a clear quality culture among programme and campus representatives. The relentless efforts of the programme director to enhance quality has led to a programme that - at the time of the site visit in 2024-2025 - has changed considerably since its initial accreditation in 2018.

Over the years, the programme profile has been sharpened and the learning outcomes have

been reformulated. The master Sustainable Entrepreneurship stands out because of its small-scale character, its emphasis on entrepreneurship in different contexts and its focus on transdisciplinary working and individual leadership. The newly formulated learning outcomes emphasise knowledge acquisition in the fields of entrepreneurship and sustainability and align with the recently developed set of sustainable entrepreneurship education competencies.

In its efforts to enhance quality, the programme can also rely on a strong and enthusiastic Advisory Board that right from the start has been providing relevant advice. Its members are committed to the programme, the campus and the development of the sustainability/circular economy eco-system in the region/province.

Notwithstanding these positive findings, the panel sees room for further improvement in two ways. Although there have been considerable efforts in the past, the programme is advised to provide even more explanation and contextualisation of sustainable entrepreneurship as a discipline towards (potential) students and (potential) employers. Moreover, some of its unique selling propositions – such as the entrepreneurial mindset, the action-oriented scope and the multi/transdisciplinary design – could be incorporated more explicitly in the (intended) learning outcomes at programme level and reflected in the course learning goals.

Taking these considerations into account, the panel assesses that the programme **meets** this standard.

Teaching-learning environment

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.

Findings

Programme

The master Sustainable Entrepreneurship is offered as a one-year full-time programme of 60 EC. The academic year is divided in four blocks of 10 weeks. The curriculum consists of nine courses of 5 EC each and a Sustainable Entrepreneurship Project (SEP) of 15 EC. There is a logical build-up throughout the curriculum blocks: students are first acquainted with the theoretical foundations of sustainability and entrepreneurship, then they delve deeper into building/transforming a sustainable enterprise, while the third block addresses the implications and outcomes of sustainable entrepreneurship. Every course features academic debates (discussing theories and academic literature) and laboratory sessions (practical assignments and exercises). In the SEP students carry out a research project, often in collaboration with an external stakeholder, and deliver both an academic (thesis) and a practical output (research translation). While scheduled in the final block, students start preparing for SEP in the Research Design course (in the second block).

As an extracurricular option, the Sustainable Startup Academy (SSA) offers seven workshops for students at Campus Fryslân who want to start their own sustainable enterprise. While the first two sessions are part of the curriculum for all students, about a dozen students per year continue the SSA workshops on a voluntary basis and upon completion may enter a regional startup competition. Students can also participate in the extracurricular Wetusus business development course, where they develop together with PhD students business cases for water

technology. Every year, about 6 to 8 students sign up for a series of four workshops.

The panel gathered from the written materials and the discussions on site that since the initial accreditation, there have been some changes in both curriculum set-up and course contents. According to the panel, these adjustments have been taken following recommendations by the initial accreditation panel and the mid-term review, student evaluations and Advisory Board suggestions. The programme's Assessment Plan 2024-2025 shows that in the current curriculum, there is a clear link between the courses and their respective learning goals on the one hand, and the overall (intended) learning outcomes at programme level. Hence it is fair to state that the curriculum is set up in such a way that it allows students to achieve the intended learning outcomes.

The discussions on site revealed that the programme is considering some further adjustments to the current offer. Examples include more explicit attention to quantitative methods in the research design course, more flexibility in the (currently fully mandatory) course offer, more extensive involvement of all students in the SSA, and more cooperation with two local universities of applied science (NHL Stenden and Van Hall Larenstein). In view of the specificity of the Sustainable Entrepreneurship programme in terms of topic, location and target student audience, the panel advises the programme to seriously explore these ideas.

In line with its finding on the previous standard, the panel welcomes the efforts of the programme team to continuously look for quality

enhancement in curriculum contents and delivery. While most changes are for the better, the panel thinks that the recently implemented split in academic and practical SEP output requires further attention. The size of the practical output does not (yet) warrant the 30% weight it assumes within the overall SEP, while a research project of 10.5 EC seems somewhat small for a master programme of academic orientation. Moreover, the panel findings on the thesis review (see standard 4) revealed that the programme could streamline and strengthen its research competencies learning line with respect to methods and methodological considerations.

Language of instruction

Right from the start, the programme was offered in English and had an English-language title that reflected two concepts – sustainability and entrepreneurship – that are well known and self-explanatory in English. In doing so, it aligns with the other bachelor and master programmes at Campus Fryslân. According to the self-evaluation report, the choice for English as language of instruction is relevant because it is typically the language of business, because many sustainability-related issues play out at an international scale, and because most academic literature on (the relatively young domain of) sustainability entrepreneurship is available in English. Moreover, it allows the programme to attract students from a wide variety of countries and prepare them for a broad range of careers in an international setting. Students and alumni indicated that the English language of instruction, and thus the international character of the programme, is a distinctive value added. Staff and Advisory Board members reported that local and regional SMEs are increasingly looking for graduates with an international profile, which in turn makes a growing number of international students stay in the Netherlands upon graduation. Finally, the panel was informed that

all teaching staff fulfils – or received training to meet – the university-wide requirement to teach in English at C1 level. Based on the written materials and the discussions on site, the panel endorses the English title of the programme, as well as the extensive motivation that underpins the decision to offer the master Sustainable Entrepreneurship in English.

Didactics

The panel gathered from the written materials and the discussions on site that the programme features a teaching philosophy, which aligns with the Faculty's educational vision 'Learning for Change: transformative learning for social impact'. Throughout the courses, Sustainable Entrepreneurship students are exposed to different forms of constructive, contextual, and collaborative learning. According to the panel, this constructivist pedagogy befits a teaching and learning environment that combines academic and practical learning outcomes and where courses consist of both academic debates and laboratory sessions.

Furthermore, the discussions on site revealed that the programme is delivered according to the principles of small-scale and interactive education. Students and alumni invariably praised this component as a distinctive feature of the programme. There are short lines between staff and students, and students feel comfortable to address teaching staff who are approachable, supportive and genuinely interested in the students. Courses tend to combine individual work and group assignments featuring individual reflection. Although some indicated that the pace of the different courses was intensive, most students seemed to manage the study and assignment load. Students confirmed moreover that staff is providing them with a lot of feedback, which allows them to increase the quality of their assignments and prepare for the exam.

During the visit the panel indicated that it thought highly of the small-scale and interactive approach. The short lines between students and staff are definitely part of the quality culture of the programme and contribute to realising effective adjustments in the programme.

Nonetheless, the limited numbers of students and staff make the programme also vulnerable in terms of workload, independent supervision and assessment. The panel therefore advised the programme to produce clear guidelines to settle student-staff relations and to avoid that students would become too dependent on a very small number of staff. Moreover, the workload of both students and staff can be reduced by rescheduling course deadlines to avoid peak moments for student finalizing three courses in parallel, by decreasing the number of staff feedback sessions, and by exploring the proper balance between formative and summative assessments to optimize the student learning process.

Student admission, intake and success rate

The students that enrol in this master programme are diverse in terms of their academic, professional and cultural background. Applicants with a bachelor's degree that included at least 5 EC business or economics related courses and either a bachelor thesis or a research methods course are directly admitted to the programme. Students with a bachelor's degree from a university of applied science can enrol after successfully completing a 10-week 7 EC pre-master course designed by the programme. During the visit, the panel discussed the admission requirements with the programme management. While it endorses the programme approach to target a diverse student audience, the panel noticed that the current admission requirements are rather limited. This, in turn, leads to some students having to catch up during the one-year programme with knowledge (econo-

mics, business, statistics) and skills (research design) that could/should have been acquired during their bachelor (pre-master) trajectory. Hence, the panel advises the programme to set more stringent requirements in terms of prior knowledge for students who can be directly admitted to the programme, and to enlarge the current pre-master programme to include courses on methods, statistics and research design.

After a first implementation year with 18 students in 2018, the cohorts have always consisted of 30 to 40 students. Detailed information on the composition of these cohorts shows that around 60% of the students are international (including also some non-European students), that almost two thirds identify as female, and that their prior education differs widely. The panel acknowledges the statements in the self-evaluation report and during the site visit that this diversity of the student population is seen as an enrichment by all stakeholders and that it creates opportunities for cross-disciplinary and cross-cultural learning.

Furthermore, the panel was informed that the success rate is particularly high – around 80% of the students complete the programme within the nominal duration of one year - while the drop-out rate (3% -7%) is very limited. Across the years about a quarter of the students graduated cum laude, which is (much) higher than in other programmes. According to the programme, these positive figures can be explained by the fact that Sustainable Entrepreneurship students tend to be highly motivated learners, who benefit from small-scale education with regular assignments and abundant feedback opportunities that allows to prepare optimally for exams. The share of cum laude graduations is likely to drop in the near future as the practice

of rounding off grades to integers has been abandoned recently.

Student support

The panel gathered from the written materials that Sustainable Entrepreneurship students are well taken care of at Campus Fryslân, and this impression was confirmed during the discussions on site. The size of the cohorts, the number of teaching and support staff, and the small-scale, interactive and collaborative teaching approach allow to build a community where students get to know each other quickly and work together intensively. During the one-day visit of the panel, this community of students, teaching and support staff was not only mentioned in all sessions but also clearly visible to the panel.

The panel was informed that the first seeds for community building are laid very early in the process: during the admission process, students are contacted proactively and invited for pre-departure webinars. The study adviser plays an important role as first contact for students during their time in Leeuwarden: the study adviser attends the introduction day to present the support options, invites students for an individual meeting and is available for ad hoc support on personal and mental wellbeing. Moreover, the small scale of the programme makes it easier to notice if a student is facing difficulties and for a student to contact a lecturer or study adviser. In fact, the close-knit and familiar environment of the programme means that a significant amount of support is informally provided by teaching staff. Students are positive about the support offered and emphasised during the visit that they appreciate in particular the short lines with the teaching staff. In this way, the threshold to contact teaching/support staff in case of study/personal issues is low. As a point for attention, the panel gathered from the written materials and the discussions on site that there

is room for a better visibility of both the on-campus student adviser and the Groningen-based student wellbeing services.

Staff

The staff team is small: according to the information provided nine staff members are involved in the programme for a total amount of 3 FTE: one full professor, one associate professor, five assistant professors, one lecturer and one PhD student. The panel noticed from the CVs that the team is diverse in nationality, has mixed academic backgrounds, a clear research profile, and expertise and interest in sustainability and entrepreneurship. In line with the faculty policy, all lecturers either have or are in the process of obtaining their University Teaching Qualification. Staff indicated during the visit that since the start of the programme, they have contributed to the academic discussion on sustainable entrepreneurship through academic publications and PhD research. A recently obtained research grant ensures that this academic output will be continued on a structural basis.

The size of the team allows for informal deliberation and calibration. Moreover, all staff know what their colleagues teach in other courses, which in turn facilitates links across courses and prevents (too much) overlap. All staff are involved in the supervision of Sustainable Entrepreneurship Projects. The panel gathered from the self-evaluation report that a favourable student-to-staff ratio facilitates support and knowledge transfer, which in turn fosters a safe and personalized educational experience. The staff the panel spoke to was very enthusiastic and highly committed to the programme and to the students. Students and alumni confirmed this impression: they were very positive about the expertise of the teaching staff, their didactic skills and their availability for (informal) discussions on their assignments, SEP and/or personal

plans. Moreover, the international composition of the student cohorts is met by an equally international staff team.

Considerations

Based on the above-mentioned findings, the panel considers that the master Sustainable Entrepreneurship has a strong teaching-learning environment featuring a coherent curriculum, a befitting teaching philosophy and a close-knit community of students and staff. The panel moreover endorses the decision of the faculty to offer the programme in English, and approves of its English-language title.

The current curriculum has improved since the initial accreditation: it has been adjusted over time, allows students to achieve the end-level qualifications, and is likely to be finetuned in the future. The panel welcomes the ongoing attention of the programme team to enhance the quality of the curriculum and advises in this regard to prioritize the inclusion of methodological training, as well as an elective course in the programme.

The panel thinks highly of the programme's didactical approach: the constructive, contextual and collaborative pedagogy befits a small-scale learning environment that combines academic and practical learning outcomes and consists of courses with academic debates and laboratory sessions. Moreover, the small-scale, intensive and interactive forms of education ensure that students are regularly challenged, kept up to

speed during the year, and regularly monitored. This, in turn, explains the low drop-out rate and the high nominal success rate in every cohort. These positive elements, however, should not refrain the programme from actively seeking to address the flip side of small-scale education: student-staff workload, balance between guidance and assessment, and between formative and summative assessment.

During the site visit, the panel felt a positive vibe. It commends the programme for creating an academic community of students with very diverse backgrounds who are taught and supported by an equally diverse, competent and enthusiastic staff team.

In addition to these positive findings, the panel advises the programme to sharpen the admission requirements in terms of prior knowledge that is expected of students who can be directly admitted to the programme, and with regard to the competencies to be demonstrated by students who enrol through the pre-master programme. Moreover, the split in academic and practical SEP output requires further attention as the size of the practical output does not (yet) warrant the 30% weight it assumes within the overall SEP, while the size of the new research output would become relatively small.

Taking these considerations into account, the panel assesses that the programme **meets** this standard.

Student assessment

Standard 3: The programme has an adequate system of student assessment in place.

Findings

Assessment system

The panel gathered from the written materials that the master Sustainable Entrepreneurship is well embedded in the assessment policies and procedures at Campus Fryslân and the University of Groningen. The programme's guidelines and vision for assessment are presented in a dedicated Assessment Plan, which is updated every year and complies with the university-wide assessment policy. The panel looked into the assessment documents that were put at disposition by the programme and found these to be comprehensive and relevant. The Assessment Programme in particular is a useful document that links the programme learning outcomes to the course learning goals, lists the different assessment modes and their weight per course, and describes the methods that are used to assess each and every course learning goal.

Course assessment

The panel was informed that before, the programme had a uniform assessment structure: each course was assessed through an essay exam, an assignment and a presentation. Following feedback from students and the mid-term review panel, the assessment structure has been revised over the past two years leading to more variation in assessment modes that follow the principles of constructive alignment and include elements of formative assessment. With regard to the latter, small group teaching in laboratory sessions offers opportunities for continuous feedback on student tasks and activities. Moreover, several courses now include mid-term assessments to spread the workload more equally within each block. The panel welcomes

this variation in assessment modes but also strongly encourages the programme team to further increase the share of formative assessments within the overall assessment structure.

Notwithstanding the recent changes, the majority of courses still comprise essay exams and course assignments. Most exams include a case study or other form of practical knowledge application, while most assignments constitute group work to facilitate collaborative learning and include an individual reflection on the process. The panel was informed that the team is looking for a more structured approach to optimally value individual contributions to group assignments and therefore to differentiate within group assessments. The panel suggests that this intention is to put in practice as soon as possible.

The panel noticed in the materials – and students and alumni confirmed during the visit – that course assessment modes are invariably communicated in a transparent way. Students know what to expect because example exams/case studies are made available prior to the exam, because staff feedback allows them to prepare for the exam, and because the exam rubrics and grading forms are shared with students before.

Triggered by its findings that most students finish the programme within the nominal duration and often do so with good grades, the panel had a more thorough look at the course exams and their results per course. The course results show that almost all students pass almost all courses at their first attempt. Moreover, in many cases there is only a limited variation in the

course results with most students scoring rather well. According to the programme teaching staff, these results are not surprising given that students are highly motivated and make optimum use of the small-scale and interactive education modes and in particular the many feedback opportunities. This point was also confirmed by the students: because of their regular contacts and feedback moments with staff, students know very well how to prepare for an exam and how to enhance the quality of their assignments. Acknowledging the feedback viewpoint of the small-scale programme, the panel invites the team to reflect whether the highly-appreciated educational approach should generate such level of exam preparation support at master level. Moreover, it advises the programme to ensure that exams and assignments are more discriminatory.

At the time of the initial accreditation, the then panel indicated that the programme should monitor and safeguard the master level of assessment. According to the programme team, this has received ample attention during the first years of implementation and is now properly implemented and safeguarded: the course learning goals are verified by the Board of Examiners, while most staff adopt the four-eyes principle in designing exams and in grading assignments. During the visit, the panel looked at essay exams from two courses and their grading forms. While the overall level of the exam is definitely beyond bachelor's, the panel noticed – and informed the programme team accordingly – that there is room to include some higher level questioning in essay exams. This, in turn, will likely result in more varied exam results and differentiation between students. The panel therefore urges the programme to consider this finding and raise the overall level of the course exams where this seems fit.

SEP assessment

Initially conceived as a master thesis, the set-up of the SEP was altered following the mid-term review: as of September 2023, the final project therefore consists of an academic part (thesis) and a practical part (research translation). As part of its external assessment, the panel reviewed a representative sample of 15 Sustainable Entrepreneurship Projects (SEPs) as well as the corresponding completed evaluation forms. The selected projects were submitted in the academic years 2022-2023 and 2023-2024. The quality of the 'old' and 'new' SEPs will be addressed under the next standard.

In so far as assessment is concerned, the supervisor and co-assessor independently make a preliminary judgement of the SEP and then jointly arrive at a final assessment. Their decision is then substantiated in one single assessment form, which is signed by both assessors and communicated to the student. For its review, the panel received the single assessment form, which differed for the old and new projects. In both cases, the evaluation form was clear and allowed for an insightful motivation of the grade. While in each case the evaluation form had been completed, the amount of feedback was not consistent and the feedback content differed considerably. In fact, the panel found that feedback was not that insightful in almost half of the forms, and that the differential assessment of the two graders was not transparent.

Although the panel acknowledges that the grading of the SEP has changed for the better as a reaction to the mid-term evaluation, there is still ample room for improvement. According to the panel this is understandable as the new grading form was only introduced last year. It is confident that the critical remarks it shared on site with the programme team will be followed-

up by actions for the next round of SEP assessments. Four elements stand out: firstly, each output is assessed on four criteria, which in turn consist of several elements that in themselves are important components of the output. Some guidance on the weighting of the elements and the criteria, as well as on the evaluation rubrics may facilitate the task of the assessors. Secondly, as announced already under standard 2, the panel thinks that the weight of the practical output is currently too high. Moreover, its assessment can be improved in terms of transparency and reliability by adding a second grader. Thirdly, the panel gathered from its review that in several cases, the supervisor and co-assessor evaluated the research report output and/or a criterion differently. In order to fully grasp their assessment and motivation, it would be good if their preliminary judgements would be added to the consolidated assessment form for internal and external review purposes. Finally, the panel found that in many cases the overall score for the SEP was rather generous. In sum, the contents of the SEP final products could be assessed more critically, according to the panel. The programme team may want to set clear expectations regarding the quality of the outputs and organise calibration sessions accordingly.

Safeguarding assessment quality

The panel gathered from the written materials that a faculty-wide Board of Examiners is safeguarding the assessment quality of the master Sustainable Entrepreneurship. The Board consists of six members, including a chair and an external member, and is supported by an administrative and a formal secretary. The Board representatives indicated to the panel that they feel supported by the Faculty and have the appropriate expertise to fulfil their tasks in an independent way. However, the Board has not always been operating in full capacity in the recent past, which in turn has hampered a

proactive follow-up of its findings and recommendations.

Discussing the panel findings on assessment, the Board of Examiners indicated that as part of its regular course reviews it has come across similarly high grades with a limited spread of results in two courses. The Board informed the programme director and the respective examiner/course coordinators of its review results but has not yet discussed their follow-up. The Board of Examiners did confirm, though, that in all cases the assessment seemed to be in line with the course learning goals. In so far as SEP assessment is concerned, the Board of Examiners looked at a sample of 'old' projects but did not come across major issues at that moment.

The panel also inquired with the Board what the requirements are to be appointed as course examiner and SEP supervisor/assessor, and was satisfied to hear that this is organised and regulated adequately. Given the new SEP, the Board of Examiners will look into the examination qualifications of those teachers who assess the practical output.

Considerations

Based on the above-mentioned findings, the panel considers that assessment is organised adequately in the master Sustainable Entrepreneurship. It is embedded in the policies and procedures of the faculty and the university, and the assessment plan ensures that there is alignment between programme outcomes, course goals and assessment modes.

Course and SEP assessments have undergone several changes since the initial accreditation of the programme and these adjustments are for the better, according to the panel. Some of the more recent changes that followed from the

midterm review require further implementation and finetuning. In this regard, the panel welcomes the programme plans for more formative and individual assessments. Similarly, the panel thinks highly of the revised assessment of the SEP yet invites the programme to do away with some of the teething problems that came to the fore when it reviewed a sample of final project assessments 'new style'. Finally, the panel suggests that the programme team looks critically to course exams and SEP as grades are relatively high and the standard variation in course results is limited.

The panel considers that safeguarding the assessment quality of the programme is in competent hands of the Board of Examiners. Given its findings on course and SEP assessment, the panel recommends the Faculty to increase the capacity of the Board of Examiners. In this way, the Board can implement its safeguarding tasks to the full and more intensively and frequently investigate the quality of course assessments and SEP output grading.

Taking these considerations into account, the panel assesses that the programme **meets** this standard.

Achieved learning outcomes

Standard 4: The programme demonstrates that the intended learning outcomes are achieved.

Findings

There are two ways to establish whether the intended learning outcomes have been achieved: by reviewing the quality of the final projects and by looking at the professional whereabouts of the alumni after their graduation. The panel has looked at both elements when assessing the quality of this master programme Sustainable Entrepreneurship.

SEP quality

Students finish their degree programme with a 15 EC master thesis, aka the Sustainable Entrepreneurship Project (SEP). The individual projects consist of solving a sustainability challenge (often carried out in collaboration with an external stakeholder) that meets the standards of academic research. Since 2023-2024, the SEP consists of two assignments: an academic output (thesis, 70%) and a practical output (research translation, 30%). As part of its external assessment, the panel reviewed a representative sample of 15 SEPs (both old and new variants) that were submitted in 2022-2023 and 2023-2024. While the assessment quality was addressed in the previous standard, this section reports on the quality of the SEP output(s).

The review results show that each and every SEP was of sufficient quality. The panel found that the topics were impactful, that the projects combined theory and practice, and that overall the outputs contained the necessary steps of academic research. All SEPs followed a similar format, were concise and well written. As a point for attention, the panel noticed that the practical outputs in the most recent SEPs were not yet developed to the extent that they would account for 30% of the overall grade. In some

cases, moreover, it seemed that the practical outputs had to make up for research products of rather modest quality.

Having established that students demonstrate through both old and new SEPs their achievement of the programme learning outcomes, all panel members nonetheless noticed that the quality of the SEPs they reviewed was rather moderate: several research questions were too descriptive for a master thesis, the theoretical framework was not always explicit, the methodological approach sometimes did not fit the research question, the empirical data collection was often quite limited, and in several cases there was no/hardly any reflection on trans-disciplinarity or on the ethical dimensions and social context of the projects. Discussing these findings with the programme team, the panel suggested spreading the SEP trajectory over a longer period of time, dedicating more supervision time to formulating a befitting research question, and considering whether the culmination of an academic master programme should be limited to 10.5 EC. The panel also advised the programme team to evaluate together with course coordinators and thesis supervisors how the level of the SEP outputs could be enhanced both in the courses and during the SEP supervision trajectory. As the programme attracts a wide variety of students, it may also want to identify which competencies should have been acquired by all students prior to enrolment.

Performance of graduates

The panel gathered from the written materials and the discussions on site that Sustainable Entrepreneurship graduates end up in relevant positions. The programme can rely on quite some information on its former students as it keeps

track in a systematic way of its alumni: at the time of the site visit, the programme had up-to-date employment information on 113 graduates.

The panel was informed that several former students are still actively involved in the programme, be it as guest speaker, advisory board member, PhD student, or lecturer. The collected information also shows that there is a clear link between the ambitions of incoming students and the effective employment situation of recent graduates. While some joined the programme with the explicit intention to start their own sustainable venture, most students aimed for – and eventually obtained - jobs as sustainability consultant/analyst, impact manager or policy adviser.

During the visit, the panel spoke to a few alumni, who emphasised that the programme had been instrumental in acquiring the necessary competencies to pursue a professional career in the very specific domain of their interest. One former student was particularly satisfied that the master programme had eventually led to a specific career path she had not envisaged after the bachelor degree.

In sum, the panel is convinced that graduates end up in positions that are commensurate with the level and domain of their studies. It therefore endorses the statement in the materials that there is a good fit between what the

programme promises and what it delivers in terms of employability.

Considerations

Based on the above-mentioned findings, the panel considers that students who graduate the Sustainable Entrepreneurship programme have effectively acquired all intended learning outcomes.

According to the panel, the selected and reviewed SEPs meet the quality expectations for a final project of academic orientation at master level, while graduates find suitable employment at master level and very often related to the domain of their study. In this respect, the panel thinks positively of the programme efforts to keep track of its alumni and involve them in programme activities.

Having established that the overall quality of the SEPs is adequate, the panel sees potential for further raising the quality bar in the final projects. It therefore recommends the programme team to evaluate its research methods and methodological learning line and the balance between the practical and academic output of the SEP. In this way, the final project would effectively constitute the high-level culmination of an ambitious and unique programme.

Taking these considerations into account, the panel assesses that the programme **meets** this standard.

Attachment 1: assessment panel

Eric Dooms, chair

Associate Professor of Strategy - TIAS

Peter van der Sijde, expert

emeritus professor in organisation, entrepreneurship and technology Vrije Universiteit Amsterdam

Veronique Schutjens, expert

professor Experiential Education in Geography at Utrecht university

Karen Taselaar, student-member

BSc International Business Administration student at UTwente

The panel was supported by Mark Delmartino, certified secretary.

All panel members and the secretary have completed and signed a statement of independence and impartiality, and these have been submitted to NVAO.

Attachment 2: site visit program

Location: Campus Fryslân, Wirdumerdijk 34, Leeuwarden

Thursday 17 October 2024

- 08.15 Arrival panel and internal meeting
- 09.00 Faculty Board & Programme Management
- 10.00 Showcases by recent graduates
- 11.00 Teaching Staff & Study adviser
- 12.00 Students
- 12.45 Lunch and internal meeting
- 13.30 Board of Examiners
- 14.00 Advisory Board & Alumni
- 14.30 Internal panel deliberation
- 15.00 Consultation & Feedback with Management
- 15.45 Internal panel deliberation
- 16.15 Preliminary feedback to all participants
- 16.30 Development Dialogue
- 17.30 End of site visit

The names of the participants are available with evaluation agency AeQui.

Attachment 3: Recommendations from previous assessment

Overall recommendations

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. 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).
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.

Steps the programme management has taken to address these recommendations

1. In all communication to prospective students and applicants we emphasize that the key aim of the programme is to develop an entrepreneurial mindset that can be applied in a range of entrepreneurial contexts; to start a new enterprise, to drive change in existing organisations, and to promote institutional change in for example policy environments. We have not added a subtitle to the programme's name as to keep it short and compact.
2. The Board of Examiners regularly selects courses from the programme for review, and advises the programme management with regard to assessment. Exams are peer-reviewed by colleagues before they are implemented.
3. We have adjusted the PLO's of the programme to be more specifically geared towards sustainable entrepreneurship content, as well as sustainable entrepreneurship competencies. The general set of leadership roles based on Mintzberg and others in the Leadership course has been replaced by the UN inner development goals. In appendix A the PLO's are aligned with the Sustainable Entrepreneurship Competencies.
4. In the past years we have observed that a minority of students has insufficient knowledge of sustainability issues. Most students have a strong intrinsic drive to be acquainted with sustainability before they enrol in the programme. Before the start of the programme, we always send prospective students a list of (popular) science resources where they can learn more about sustainability. We have created opportunities for the students to learn more about the technical dimensions of sustainability, for example by developing the Wetsus business development course. In this (extracurricular) course, students are teamed with PhD students from Wetsus (the Water campus in Leeuwarden) to develop business cases for water technology. Furthermore, we are working on increasing the flexibility of the programme in such a way that students can familiarize themselves more with the technical and natural science aspects of sustainability. This could be done for example by creating more space for electives.

Attachment 4: reviewed documents

Self-evaluation report

- MSc Sustainable Entrepreneurship, University of Groningen, campus Fryslân, 2024.
 - o Intended learning outcomes
 - o Teaching-learning environment
 - o Assessment
 - o Achieved learning outcomes
 - o SWOT analysis
 - o Student chapter
 - o Steps following initial accreditation

Appendices

- Programme level learning outcomes
- Student Profile
- TNO: initial audit of 2017
- Mid-term report 2022
- Reflection on the programme midterm review
- Organizational structure of the faculty / Organogram
- Teaching and Exam Regulations & Assessment Programme 2023-2024
- Advisory Board Members
- Alumni information
- Partner Organisations Sustainable Entrepreneurship Project (SEP)
- Campus Fryslân Educational vision
- Course Handbooks
- Sustainable Entrepreneurship Course Handbook
- Preparation Course handbook
- Preparation Course participants
- Overview Staff Team
- Campus Fryslân Quality Assurance Protocol
- University of Groningen Quality Assurance Protocol
- MSc Sustainable Entrepreneurship Education Monitor
- Faculty Education Monitor
- Information about and from the Board of Examiners
- University of Groningen Assessment Policy
- Annual reports from the Programme Committee
- End of year programme evaluations
- National Student Survey scores 2024
- Student reflection video
- Previous education students
- Sustainable Entrepreneurship Projects - titles and results
- UG policy AI in education 2023
- Board of Examiners memo use of ChatGPT 202

Additional materials

- Overview of student results per course
- CV's of teaching staff
- Examples of practical outputs graduation work
- Assessment of selected courses
- Thesis assessment forms of co-assessors

Thesis review

- A representative sample of 15 graduation works and their assessment forms, selected among students graduating the MSc Sustainable Entrepreneurship programme in 2022-2023 and 2023-2024. Names and student numbers are available with evaluation agency AeQui

