

Tilburg University
Tilburg School of Economics and Management

AACSB – NVAO combined accreditation visit

Report on Programme Assessments

November 2022

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SUMMARY JUDGEMENT

Introduction

This document reports on the external assessment of 19 academic degree programmes at the Tilburg School of Management and Economics (TiSEM) of Tilburg University. The assessment was undertaken as part of a broader exercise combining the Continuous Improvement Review of Tilburg University (TiSEM and TIAS) by AACSB with the assessment of programme quality according to the 2018 NVAO framework for limited programme assessments. The Peer Review Team (PRT) performing the external assessment consisted of three AACSB volunteers, a Belgian academic expert familiar with the Dutch higher education system, a student member and an NVAO-certified secretary. The combined AACSB-NVAO accreditation visit took place from 29 May until 1 June 2022.

In the run up to the visit, the PRT received extensive and good quality information on Tilburg University, TiSEM and the respective degree programmes under review. As both Tilburg University / TiSEM and the degree programmes were already accredited and aimed to maintain the AACSB quality mark and obtain re-accreditation by NVAO, the materials and the discussions focused on recent developments at School and programme level. The PRT considers that since the previous (combined AACSB-NVAO) accreditation in February 2017, good progress has been made on all accounts. In fact, it thinks highly of the way in which the school and the programmes have engaged with the recommendations of the previous panel.

The PRT appreciated the open atmosphere in the discussions on site. Throughout the visit and across all programmes, it sensed a positive spirit among all interviewees, as well as a clear commitment to TiSEM and its programmes. Faculty were passionate about their discipline, the courses they teach and the programmes they relate to. Students and alumni felt part of the university community and were advocating strongly for their programmes.

Standard 1 – intended learning outcomes

The degree programmes at TiSEM are embedded in the values and the educational vision of the University. There is a good connection between the purpose of the respective programmes and the mission and vision of the School. The PRT thinks highly of the way in which each degree programme identifies its own rationale and in doing so, manages to set itself apart from similar programmes in the Netherlands and abroad.

The previous review team recommended to strengthen the programme learning outcomes. The current sets of intended learning outcomes, which are different and more sharply and systematically formulated than the ones reviewed in 2017, reflect clearly the purpose of the respective programmes and do justice to the educational vision of the University and the School. The PRT establishes that for each of the 19 programmes under review, the intended learning outcomes are sufficiently concrete with regard to content, level and orientation, and are embedded in the respective curricula and across the courses.

TiSEM and its degree programmes maintain good relationships with the “outside world”, which are operationalised among others through a faculty-wide Advisory Council and programme-specific Advisory Boards in which both alumni and employers play an important role.

In recent years, the University has adopted the Tilburg Educational Profile, which is finding its way into the (bachelor) programmes. While its principles have been implemented on paper, the operationalisation has not yet fully and consciously reached the bachelor students and the teaching staff. Hence, there is room to communicate better about this profile and how it is operationalised in the respective programmes and curricula. When stepping up their communication efforts, the school and programme management could also inform students (and staff) about the new vision of the University and how its values will impact on the degree programmes and the entire Tilburg University community.

In sum, the PRT considers that for each programme under review, the intended learning outcomes are sufficiently concrete with regard to content, level and orientation. They address all competencies and in their new formulation (will) reflect the key values of the University and the School. Although at the time of the site visit, certain programmes are more advanced than others in reformulating the intended learning outcomes and embedding the adjusted qualifications in their curriculum, the panel considers that all degree programmes under review feature adequate intended learning outcomes. The PRT therefore judges that each programme meets standard 1, intended learning outcomes.

Standard 2 – teaching and learning environment

TiSEM has developed a strong teaching and learning environment, which invariably allows students to reach the intended learning outcomes. While each programme under review was judged positively during the previous accreditation visit, the panel observed with satisfaction that all programmes have adjusted and enhanced their curriculum.

The Internationalisation Plan of the School is reflected in the day-to-day delivery of programmes and courses. While students and staff are becoming increasingly international, the University and the School are working actively towards creating a safe and diverse international atmosphere on campus. The PRT acknowledges and supports the arguments of TiSEM to offer most of the programmes under review in English.

TiSEM has at its disposition sufficient and properly qualified staff to deliver the programmes. The panel thinks highly of the professionalisation opportunities that are not only on offer but also taken up by the staff.

Furthermore, the School has shown a great resilience in the past few years: first and foremost by going at lengths to mitigate the impact of the COVID-19 pandemic on education, assessment and the (emotional) wellbeing of students and staff; but also in addressing the recommendations of the previous panel to assure education quality.

In sum, PRT considers that the teaching and learning environment for the 19 programmes under review is robust. This appreciation extends also to the three main components of this standard: curriculum, staff and facilities. Although certain programmes are doing better than others on individual components of this standard, the panel considers that the design and contents of the curriculum, the quality and quantity of the staff and the education facilities at TiSEM enable students to reach the intended learning outcomes of their respective programmes. The PRT therefore judges that each programme meets standard 2, teaching-learning environment.

Standard 3 – student assessment

The degree programmes at TiSEM can rely on a well-developed system of assessment. The assessment principles and policies at both University and School level are clear, well aligned and properly operationalised in the respective programmes. In terms of assuring the quality of assessment, the Examination Board has a huge remit which it is handling very competently.

The PRT thinks highly of the efforts undertaken by TiSEM to address those parts of the assessment system that the previous review panel earmarked for improvement. Some elements such as the assessment plans and the thesis assessment forms already exist for a long time but are now used in a better way than before and this across all programmes. Other structural initiatives such as the appointment of an Associate Dean Assessment and Quality Assurance, as well as the creation of a dedicated Assessment Assurance Committee and an Assessment Support Team increase and ensure assessment quality across courses and programmes.

Based on the written materials, the discussions on site and the report of the thesis committee, the PRT considers that assessment has not only improved on paper, but also in the day-to-day reality of the respective courses, theses and programmes. The panel endorses the findings of the thesis committee that all programmes are using good quality thesis assessment forms and that in a qualified majority of cases (85%) these forms are not only completed properly but also in an insightful way. Hence, it is fair to state that thesis assessment is an integral part of the overall assessment system at TiSEM and that over the past few years assessors, course coordinators, programme and school management have given it the attention it deserves.

In sum, the PRT considers that assessment is well organised at TiSEM in general and in the individual programmes under review in particular. Although some programmes have more variety in assessment formats and/or provide more insightful feedback in thesis assessment forms than others, the panel considers that the assessment policy, the course assessments, the thesis evaluation and the work of the Examination Board and the Assessment Assurance Committee all contribute to a strong quality culture across TiSEM and its degree programmes. The PRT therefore judges that each programme meets standard 3, student assessment.

Standard 4 – achieved learning outcomes

Bachelor and master theses indicate to what extent students have achieved the intended learning outcomes. Having established that 99% of the comprehensive thesis sample was at least of acceptable quality, the PRT considers that students who graduate from a TiSEM degree programme have indeed achieved the programme learning outcomes at the end of the

curriculum. The size of the thesis review exercise in terms of sample and reviewers demonstrates that TiSEM and its degree programmes pay careful attention to the position of the thesis as final end level product. Moreover, the PRT is impressed that so many different assessors across all programmes under review manage to come to final scores that are almost invariably (92%) considered as balanced and adequate by their peers of the thesis committee.

Achieving the programme learning outcomes also constitutes a good basis for a follow-up study or a professional career. The data on the performance of TiSEM alumni and the discussions with individual alumni demonstrate that alumni find their way after their study in Tilburg. Moreover, alumni reflect particularly positively on those aspects of their study that constitute the basis of a university training: high quality programmes, critical thinking, in-depth understanding of disciplinary issues and a disposition towards life-long learning.

In sum, the PRT considers that across all programmes under review, students who pass the thesis invariably achieve the intended learning outcomes and are therefore entitled to graduate. Moreover, TiSEM graduates manage to find a job quickly and move on to relevant positions in a follow-up study or on the labour market. Although the overall quality of the thesis sample and the adequacy of the final thesis scores differ slightly across individual programmes, the panel considers that all degree programmes do very well in terms of achieved learning outcomes. The PRT therefore judges that each programme meets standard 4, achieved learning outcomes.

Overall appreciation

Based on the information provided and the discussions during the site, the panel considers that all programmes meet the quality requirements on each of the four standards set by NVAO's Assessment Framework for the Higher Education Accreditation System of the Netherlands for limited programme assessments: intended learning outcomes, teaching-learning environment, student assessment, and achieved learning outcomes. This appreciation is based on the general findings across all TiSEM programmes, as well as on the way each degree programme under review fulfils each and every standard in its own way.

Given that its overall of the degree programmes is positive, the PRT issues a positive advice to NVAO on the quality of each programme submitted for accreditation by the Tilburg School of Management and Economics at Tilburg University:

- BSc Bedrijfseconomie (Business Economics)
- BSc Econometrics and Operations Research
- BSc Economie (Economics)
- BSc Economics and Business Economics
- BSc International Business Administration
- BSc Fiscale Economie (Tax Economics)
- MSc Accountancy
- MSc Business Analytics and Operations Research
- MSc Econometrics and Mathematical Economics

- MSc Economics
- MSc Finance
- MSc Fiscale Economie (Tax Economics)
- MSc Information Management
- MSc International Management
- MSc Marketing Analytics
- MSc Marketing Management
- MSc Quantitative Finance and Actuarial Science
- MSc Strategic Management
- MSc Supply Chain Management

The chair and the secretary of the PRT hereby declare that all panel members have studied this report and that they agree with the judgements laid down in the report. They confirm that the assessment has been conducted in accordance with the demands relating to independence.

On behalf of the Peer Review Team,

Rudy Martens
Chair

Mark Delmartino
Secretary

Date: 22 November 2022

INTRODUCTION

From 29 May to 1 June 2022, an AACSB-NVAO assessment visit was held at the School of Economics and Management (TiSEM) of Tilburg University and at the TIAS School for Business and Society (TIAS). Organised in line with the AACSB-NVAO Agreement of Cooperation, the visit combines the review of programme quality according to the NVAO framework with a Continuous Improvement Review of Tilburg University (TiSEM and TIAS) by the Association to Advance Collegiate Schools of Business (AACSB). Following a similar exercise in 2017, it is the second time that TiSEM, TIAS and most of their degree programmes are assessed at the same time in accordance with both AACSB and NVAO quality standards.

This report presents the assessment of 19 bachelor and master programmes at TiSEM. The administrative data on these programmes are presented in Annex 1. The assessments of TiSEM's Research Master programme and of TIAS' (executive) master programmes are presented in separate reports. The following description of the working method reflects the approach to the entire - combined - accreditation exercise.

Panel composition

The assessment was performed by a so-called Peer Review Team (PRT), a panel consisting of three AACSB volunteers, an expert on Dutch higher education and a student member. The team that visited Tilburg University (TiSEM and TIAS) and issued judgements on all standards and programmes, consisted of:

- Rudy Martens, Emeritus Professor University of Antwerp, Belgium, chair
- Philip Vergauwen, (past) Dean Solvay Brussels School of Business & Management, Belgium, vice-chair
- Michael Ginzberg, Dean Emeritus Worcester Polytechnic Institute, USA
- Filipe Santos, Dean of Católica-Lisbon at Universidade Católica Portuguesa, Portugal
- Evi Voets, Maastricht University, student-member

The PRT was accompanied by Mark Delmartino, an NVAO-certified secretary who also liaised between the panel and TiSEM. All members and the secretary signed a statement of independence and confidentiality. The NVAO approved the panel in March 2022. Annex 2 contains a short description of the team members.

Preparation

In the run-up to the combined visit, TiSEM produced a Continuous Improvement Review (CIR) report addressing the issues covered by the AACSB standards for business schools that already hold AACSB recognition. It also prepared three volumes of self-evaluation reports according to the NVAO assessment framework: in addition to a common introductory part, the publications contained programme-specific information on six bachelor programmes, eight business-related master programmes and six economics-related master programmes, respectively. Furthermore, university- or school-wide policy documents and materials, as well as programme-specific information (e.g. assessment plans) were made available in the digital

base room hosted by Tilburg University. The materials which the PRT studied in the framework of this combined accreditation visit are listed in Annex 4. The panel wants to express its gratitude towards the accreditation team at TiSEM and TIAS who has been instrumental in ensuring a good and timely information flow from both schools to the panel.

Prior to the visit, the accreditation team at TiSEM and TIAS was in contact with the PRT, the panel secretary and the AACSB accreditation manager to work out the programme of the sessions and agree on the materials to be made available. Moreover, PRT members have held several internal meetings to prepare for the visit. On 4 May 2022, the AACSB office in Amsterdam organised a briefing session for the PRT. During this so-called pre-visit call, the specific character of this combined accreditation visit was presented to the panel members, as well as the particular perspectives of the AACSB continuous improvement review and the NVAO programme assessment. The PRT vice chair, the student member and the secretary exchanged impressions on the self-evaluation reports during two online meetings. Specific issues that arose from these reports and required further clarification were submitted to TiSEM with the request to answer in writing by the time of the site visit. Moreover, this group and the PRT chair held a final preparatory meeting on 25 May to identify the key issues to be addressed during the site visit from both AACSB and NVAO perspective. This meeting also served as Open Consultation Hour: eventually three people related to the TiSEM programmes signed up for this opportunity to speak individually and confidentially with the panel.

Site visit

The programme of the site visit was established and fine-tuned between TiSEM, TIAS, AACSB, the PRT chair and vice-chair, and the secretary. The visit was held from Sunday 29 May until Wednesday 1 June 2022. On Sunday afternoon, the PRT had an internal discussion. At this meeting, panel members discussed the key issues they wanted to raise with the different stakeholders during the respective sessions. In order to fit all components that are customary in AACSB and NVAO reviews, the site visit schedule was very tight: nonetheless, all but two sessions were held in plenary. Given that the PRT had to assess a total of 35 degree programmes, nine sessions were dedicated to discussions with management, lecturers and students of the TiSEM bachelor, TiSEM master and TIAS (executive) master programmes, respectively. On Wednesday morning, the PRT discussed and exchanged good practices on diversity and inclusion, global branding and hybrid learning with a representation of TiSEM and TIAS management and policy staff during a combined Development Dialogue (NVAO) and Consultative Feedback (AACSB) session. At the end of the site visit, the PRT chair presented the key findings from both AACSB and NVAO perspective to the management of TiSEM and TIAS, to the programme directors of both schools and to the Rector and Vice-Rector of Tilburg University. An overview of the site visit programme is provided in Annex 3.

Assessment framework

TiSEM currently offers 26 degree programmes. In the framework of this combined accreditation visit, AACSB examined the whole School of Economics and Management; the PRT also assessed the quality of 20 out of 26 degree programmes with the scope of submitting an advice to NVAO on their accreditation. The six other programmes follow their own

accreditation rhythm. In view of this report and also during the site visit, the programmes under review were/are clustered in three groups: (i) six bachelor programmes, (ii) thirteen master programmes, and (iii) one research master programme which is reported on separately.

In order to establish the quality of each programme under review at TiSEM, the PRT has followed the Assessment Framework for the Higher Education Accreditation System of the Netherlands, which is described in the NVAO publication of September 2018. Given that Tilburg University successfully completed the institutional audit in 2019 and TiSEM holds accreditation for all degree programmes under review, the PRT was guided by the framework for limited programme assessments that focuses on the quality achieved. Programmes must demonstrate that their educational practices meet four standards: (1) intended learning outcomes, (2) teaching-learning environment, (3) assessment, and (4) achieved learning outcomes. For each programme, the panel has given a substantiated judgement per standard on a three-point scale: meets the standard, partially meets the standard or does not meet the standard. The panel subsequently recommended a final conclusion regarding each programme on a three-point scale: positive, conditionally positive or negative. This weighted and substantiated appreciation serves as advice towards NVAO when taking a decision on the re-accreditation of the respective programmes.

Thesis committee

The NVAO standard on achieved learning outcomes has been tested among others by examining a sample of 15 theses for each degree programme. Such thesis review is not part of the AACSB accreditation exercise and was therefore outsourced to a thesis committee of 22 academic experts:

- Philip Vergauwen, Solvay Brussels School of Economics & Management, chair
- Egon Berghout, University of Groningen
- José Bloemer, Radboud University Nijmegen
- Jan Bouwman, Groningen University
- Martine Cools, KU Leuven
- Henri de Groot, Vrije Universiteit Amsterdam
- Marc Deloof, Antwerp University
- Rian Drogendijk, University of Groningen
- Robert Dur, Erasmus University Rotterdam
- Harry Garretsen, University of Groningen
- Sigrid Hemels, Erasmus University Rotterdam
- Koen Inghelbrecht, Ghent University
- Roger Laeven, University of Amsterdam
- Frank Moers, Maastricht University
- Rudolf Muller, Maastricht University
- Antoon Pelsser, Maastricht University
- Jan Riezebos, University of Groningen
- Hendrik Slabbinck, Ghent University
- Arjen Slangen, KU Leuven

- Laura Spierdijk, Twente University
- Bas van der Klaauw, Vrije Universiteit Amsterdam
- Iris Vermeir, Ghent University

A brief presentation of the thesis committee members is provided in Annex 2. The chair of the thesis committee was the vice-chair of the Peer Review Team. The panel secretary supported the work of the thesis committee. The methodology adopted for this review is presented in the General Findings section of this report. The theses were selected per programme and allocated according to the expertise of the respective experts.

Well before the site visit, the thesis committee members reviewed and reported on the quality of the theses as well as on the quality of the thesis assessment. On the basis of their feedback, the panel secretary drafted a report on the findings and considerations of the thesis committee, both in general terms and for each programme individually. This report was reviewed by the experts and validated by the thesis committee chair. Programme-specific issues that required further clarification were submitted to TiSEM with the request to answer in writing by the time of the site visit. The PRT verified both overall considerations and individual clarifications during the interviews and eventually issued a judgement per programme on the quality of both thesis (standard 4) and thesis assessment (standard 3).

Report structure

This report covers the external assessment of 19 existing degree programmes, undertaken in the framework of the combined AACSB-NVAO accreditation visit. It will be submitted by TiSEM to NVAO as part of the accreditation process of its degree programmes. The next chapter constitutes the core of the report and is organised as follows: in the first section, the panel's general findings and considerations that apply across all programmes are presented per NVAO standard; the second section contains the specific findings per programme, and include the considerations and judgements of the PRT on each programme individually.

After the site visit, the secretary wrote a draft version of this report and circulated it to the PRT for review and feedback. The comments of the panel members were incorporated in a pre-final version, which was validated by the chair on 21 October 2022. The final draft was sent to TiSEM for a check on factual errors. The feedback from the institution was discussed in the panel that modified the text where it thought this was appropriate. The chair then established the final version of this report, which was sent to TiSEM in November 2022.

PROGRAMME ASSESSMENTS

Tilburg University exists since 1927. It is one of 14 research universities in the Netherlands and has a focus on the humanities and social sciences. It currently houses five schools - Economics and Management, Law, Social and Behavioural Sciences, Humanities and Digital Sciences, and Catholic Theology. Tilburg University is an 80% shareholder of TIAS School for Business and Society. Since the previous accreditation visit in 2017, the student number at the university has increased from 12,500 to over 20,000.

The Tilburg School of Economics and Management (TiSEM) is the oldest and largest School of the university. At the end of 2021, it was home to over 8000 students attending 26 degree programmes and 380 academic staff in eight academic departments: Accountancy, Econometrics and Operations Research, Economics, Finance, Management, Marketing, Public Governance, and Tax Economics.

This report covers the assessment of nineteen bachelor and master programmes. The Peer Review Team noticed that these programmes contain several common features and that certain elements of the assessment framework are addressed similarly in each of the programmes under review. Hence the organisation of this chapter in two sections: in the first section, the panel's general findings and considerations that apply across all programmes are presented per NVAO standard; the second section contains the specific findings which are described per programme and include the considerations and judgements of the PRT on each programme individually.

General findings and considerations

Further to its message during the site visit, the PRT wants to emphasise that it was very satisfied with the quality and comprehensiveness of the information provided by TiSEM. This appreciation relates to the development and current situation of the School, described in the Continuous Improvement Report for the AACSB review, as well as of the respective degree programmes presented in the Self-Evaluation Reports. The panel thought highly of the interesting benchmarking almost all programmes had made as an exercise in strategic positioning towards similar programmes in the Netherlands and abroad; similarly, the PRT welcomed the respective student chapters as informative, independently written and sometimes also creative sections of the reports; finally, the panel noticed the extensive attention in all reports on how the recommendations of the previous visit had been addressed.

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.

Mission, vision and values

In the run-up to the site visit, the PRT was informed about the recently issued university strategy towards 2027 (when Tilburg University will turn 100 years old). In the publication *Weaving Minds & Character*, the university presents its vision for the future along four inter-related values. These values are rooted in a long tradition and are central to the way the university wants to think, act and tackle the rapidly changing and challenging world. Being part of Tilburg University means according to this strategy that you want to be:

- *curious* and always in search of new and fundamental knowledge and insights
- *caring*, respecting each other and the environment, drawing strengths from differences
- *connected* with each other, with society, with other disciplines and other cultures
- *courageous* in thought and action, critical, independent and decisive

The discussions with the management of both university and schools have shown that these core values (will) apply at all levels of the university and (will) permeate all policies whether in education, research, leadership or the design of the organisation.

The PRT gathered from the materials and the discussion that this (new) strategy reflects the university's (existing) educational vision: the Tilburg Educational Profile (TEP) emphasises not only the acquisition of knowledge and skills but also the development of character. Since the previous accreditation visit, TEP has been introduced university-wide in all bachelor programmes, including at TiSEM, in order for students and alumni to develop their talents, increase their knowledge and contribute to society.

The goals of the knowledge pillar are that graduates are experts in their fields, are able to establish relationships with other disciplines, use and apply knowledge for social innovation, and that they link theory to current issues in society. The panel noticed that this pillar was already – and continues to be – firmly anchored throughout the learning outcomes, the curriculum and the course assessments in the respective TiSEM programmes.

The skills pillar includes academic, social, creative and innovative skills. The panel established that these skills are reflected more explicitly than before in the intended learning outcomes, and each bachelor programme now features specific courses in which these skills are worked on.

The pillar on character building is rather new and, according to the panel, developed more comprehensively than the attitude component of the respective programme objectives before. The educational profile consists of five character elements: intellectual independence, critical mindset, social responsibility, scientific responsibility and entrepreneurship. Students across Tilburg University are taught to reflect critically on themselves and others, they are encouraged to demonstrate initiative and act proactively, and they are shown how to act in a socially

responsible manner. The panel noticed that more than before, the programmes are expected to emphasise the link of their discipline with society and the professional field.

The uptake of these character elements and their integration in the respective bachelor programmes will be presented in the programme-specific section of this report. The discussions on site, however, showed that the principles of TEP and their operationalisation have not yet fully and consciously reached the bachelor students and the teaching staff: while teaching staff ensure that students acquire the necessary competencies, they often do not link these competencies to the specific features of the Tilburg Educational Profile.

Furthermore, the PRT was informed that over the past few years ‘new’ themes such as digital transformation, sustainability, corporate responsibility, diversity and inclusion are becoming increasingly prominent across the University and within the School, and are covered more explicitly than before in the respective programme outcomes and curricula at TiSEM. A more detailed analysis of their uptake in the respective programmes is provided in the next section.

Finally, the panel welcomes the efforts of TiSEM to place diversity and inclusion (D&I) high on the strategic agenda 2022-2027 of the School: a D&I task force worked out an action plan for improving diversity and inclusion in the coming years; following the approval of this plan in February 2022, a Diversity and Inclusion Officer was appointed in March to oversee the implementation of the plan, advise the Management Team and keep D&I issues on the agenda of the School. Similarly, a Learning Analytics officer was hired to support both the School management and all degree programmes at TiSEM in converting existing data into usable management information, in performing scientific research in the field of Learning Analytics and educational science, and in contributing the learning analytics perspective to the development of new (online) courses. These developments show according to the PRT that TiSEM is allocating additional resources to those topics it finds important – and which the panel considers highly relevant.

Programme purpose

The School’s Management Team and in particular the Vice-Dean for Education is responsible for all degree programmes at TiSEM and approves the learning outcomes, the contents of the curriculum and the execution of education. Each programme is headed by an Academic Director who is responsible for the development and improvement of the curriculum and for the overall quality of the programme. The Programme Coordinator supports the Academic Director and liaises between the students and the teaching staff.

The degree programmes under review at TiSEM are all of academic orientation and can be divided in three clusters: six three-year full-time Bachelor of Science programmes prepare students mainly for a further study at master level; thirteen one-year Master of Science programmes target bachelor graduates from both the Netherlands and abroad and prepare for a career in industry, government or civil society; the two-year research master programme (covered in a separate report) attracts high performing bachelor graduates from all over the world who intend to pursue a research career in academia (PhD trajectory) or in research-

intensive positions elsewhere. Almost all programmes are taught in English, except for the degrees in Fiscal Economics because of their distinctively national profile and purpose. Moreover, a few bachelor programmes offer first-year courses also in Dutch to mitigate the transition from secondary to higher education for Dutch students.

In preparing for the site visit, the PRT obtained good insight into the specific features of the individual degree programmes by reading the informative Self-Evaluation Reports. While the specific purpose of each individual programme will be analysed in the next section, the panel notices that overall, there is a clear link between the strategy of the University, the vision of the School and the rationale of the programmes. Moreover, the benchmarking exercise in the self-evaluation reports shows according to the PRT that every programme is well aware of its distinguishing features that set itself apart from similar programmes in the Netherlands and beyond.

Intended learning outcomes

The panel gathers from the Self-Evaluation Reports that all degree programmes at TiSEM have dedicated intended learning outcomes, and that the contents of the respective programme curricula are aligned to these learning outcomes. Moreover, the PRT notices that the learning outcomes reflect the rationale of the respective programmes and in this way also the vision of the School and the strategy of the University.

The learning outcomes are regularly revised by the School and the programmes; the most recent review for all degree programmes was done in Spring 2021. In these exercises, programmes check whether existing learning outcomes still are in sync with the latest developments in the academic domain, the professional field and the educational vision and mission of the University and the School. At this occasion, the programmes also review their assessment plans (which ensure consistency between the course learning goals and the programme learning outcomes) and adjust these if necessary.

The previous review panel recommended in 2017 that TiSEM may want to consider adopting a more standardised approach towards presenting and formulating ILOs per programme; this panel also noticed that in several cases the formulation of the learning outcomes could be sharpened in order to reflect (even) better the specificity of the discipline-based knowledge, skills and attitudes students should acquire within a programme. The current PRT establishes that TiSEM and its degree programmes have taken this recommendation at heart: TiSEM decided to classify all programme learning outcomes according to the Dutch Qualification Framework model featuring the categories Knowledge, Applying Knowledge, Problem-solving skills, Learning and Development, Information Skills, Communication skills, and Responsibility and independence. The PRT gathers from the written materials and the discussions that some programmes have already sharpened their intended learning outcomes following the latest review and that others will do so by the next academic year. A more in-depth analysis per programme is provided in the next section.

Overall, the PRT notices that programmes have used the opportunity of the most recent review to take on board the university-wide educational vision, i.e. the Tilburg Educational Profile and its Knowledge, Skills and Character pillars, in the respective learning outcomes. In this regard, the panel received a very useful presentation linking the elements of the Tilburg Educational Profile to the categories of the Dutch Qualification Framework.

Moreover, the above-mentioned ‘new’ themes on which TiSEM wants to position itself - such as data analytics, digital transformation, sustainability, corporate responsibility, diversity and inclusion - are also finding their way into the curriculum and the learning outcomes. Similarly, the PRT welcomes the programmes’ attention to current and emerging technologies as an integral part of lifelong learning skills that stimulate students to learn new technology throughout their careers: in fact, the panel notices with satisfaction that during their time at TiSEM, students do not only learn to work with new technology, but also acquire knowledge about the way technology is important for their field of study.

Finally, the PRT understands from the discussions that some programmes have used this review process to implement some content related changes to ensure that their learning outcomes reflect the latest requirements from the professional field and prepare students more explicitly than before for a professional career.

Professional field

The PRT gathers from the written materials and the discussions on site that programmes are following up the latest developments in their respective professional domains. At School level, the Vice-Dean for Education holds overall responsibility for (the quality and execution of) the degree programmes. For many years already, TiSEM has an Advisory Council: it currently consists of eight members who hold important positions in business or the non-profit sector and have strong ties with the field of economics and business economics. During the visit, the PRT met several council members and acknowledges that the Advisory Council points to important developments in business and society that are relevant to include in the respective degree programmes.

The Academic Directors are responsible for the quality of the individual degree programmes. The PRT understands that some of these programmes have a dedicated Advisory Board with representatives of the professional field who discuss recent developments in society and the business world with the Academic Director. Moreover, individual teaching staff sometimes have a part-time position in companies or non-profit organisations and ensure in this way that the professional dimension finds its way directly into the curriculum (goals) and the programme (outcomes). Similarly, programmes keep their curriculum up to date in discussions with guest lecturers from the professional world, with alumni and with company supervisors of students who do an internship.

Programme portfolio

Before and during the site visit, the PRT has been inquiring about and discussing the programme portfolio of TiSEM. While assessing the portfolio as such is not within the remit of this

programme-based accreditation, the PRT thinks the portfolio requires attention of the management at both School and programme level.

The PRT notices that TiSEM has a clear rationale for each programme and has no doubts whatsoever regarding the relevance of the individual programmes under review. Nonetheless, the total number of programmes offered by TiSEM is big and domain-wise some programmes seem to be very close to one another when looking at their titles. According to the PRT, there is scope for TiSEM and its degree programmes to look for synergies within the current portfolio and across programmes, an exercise that requires also the involvement of the Academic Directors who head each programme.

The panel gathers from the discussions on site that in their monthly meetings Academic Directors discuss issues of common programme concern but not the overall portfolio. A few programmes within the same domain (e.g. marketing, quantitative economics) have additional joint meetings. However, until now the position of an individual programme within the overall TiSEM portfolio is mainly addressed in bilateral talks between an Academic Director and the Vice-Dean education.

Hence the suggestion of the PRT to pay more attention to issues of synergy across programmes in the monthly Academic Directors meetings and to use these meetings also to provide input to the envisaged TiSEM-wide reflection on the portfolio. Furthermore, the panel acknowledges the internal reflection of the School management on the number of degree programmes in the portfolio and welcomes their plans to set up a committee that will discuss the composition of this portfolio in the future.

General considerations

The PRT considers that the degree programmes at TiSEM are embedded in the values and the educational vision of the University. There is also a good connection between the purpose of the respective programmes and the mission and vision of the School. Moreover, the panel thinks highly of the way in which each degree programme identifies its own rationale and in doing so, manages to set itself apart from similar programmes in the Netherlands and abroad.

The previous review team recommended to strengthen the programme learning outcomes. The PRT welcomes the current sets of intended learning outcomes, which are different and more sharply and systematically formulated than the ones reviewed in 2017. The new learning outcomes reflect clearly the purpose of the respective programmes and do justice to the educational vision of the University and the School. For each of the 19 programmes under review, the panel considers that the intended learning outcomes are sufficiently concrete with regard to content, level and orientation. Moreover, the learning outcomes are embedded in the respective curricula and across the courses.

The PRT considers that TiSEM and its degree programmes maintain good relationships with the “outside world”, which are operationalised among others through a faculty-wide Advisory

Council and programme-specific Advisory Boards in which both alumni and employers play an important role.

In recent years, the University has adopted the Tilburg Educational Profile, which is finding its way into the (bachelor) programmes. While its principles have been implemented on paper, the operationalisation has not yet fully and consciously reached the bachelor students and the teaching staff. Hence, there is room according to the panel to communicate better about this profile and how it is operationalised in the respective programmes and curricula. When stepping up their communication efforts, the school and programme management could also inform students (and staff) about the new vision of the University and how its values – curious, caring, connected and courageous – will impact on the degree programmes and the entire Tilburg University community.

Conclusion

In sum, the PRT considers that for each programme under review, the intended learning outcomes are sufficiently concrete with regard to content, level and orientation. They address all competencies and in their new formulation (will) reflect the key values of the University and the School. Although at the time of the site visit, certain programmes are more advanced than others in reformulating the intended learning outcomes and embedding the adjusted qualifications in their curriculum, the panel considers that all degree programmes under review feature adequate intended learning outcomes. As a result, **the Peer Review Team judges that each programme meets standard 1, intended learning outcomes.**

Standard 2 - teaching and 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.

Curriculum

The PRT has studied the Self-Evaluation Reports which contain plenty of information on the respective programme curricula in the academic year 2020-2021, as well as on the developments in these programmes since the previous accreditation visit in February 2017. Specific developments and features of individual programmes will be covered in the next section.

Overlooking all programmes under review, the panel notices that most bachelor and master programmes have a similar structure: all programmes are offered full-time and most curricula consist of semester-long courses with a study load of 6 ECTS. All bachelor programmes amount to 180 ECTS, have a dedicated minor period of 30 ECTS and a BSc thesis of 12 ECTS. In order to obtain a positive Binding Study Advice, first year bachelor students should obtain at least 42 credits; in line with nation-wide agreements, this requirement has been suspended or lowered during the COVID-19 pandemic. Similarly, the so-called “harde knip” was abandoned during the past two years allowing also bachelor students who had obtained almost all study credits to

already enrol on an MSc programme. All master degrees are one-year full-time 60 ECTS degrees with mostly two entry moments and a thesis that often amounts to 18 ECTS.

The PRT gathers from the materials and the discussions that the bachelor programmes have been fine-tuned over the years to include all three pillars of the Tilburg Educational Profile. This means that in addition to the traditionally strong knowledge component, bachelor curricula now also pay good attention to skills (e.g. the Programme for Academic Study Success PASS), to job market preparation, to a mobility window for internships or a study period abroad, and to competences that relate to the character pillar of the profile: critical mindset, scientific responsibility, social responsibility, intellectual independence and entrepreneurship. Moreover each bachelor curriculum features philosophy courses. According to the panel, all bachelor programmes refer in their descriptions to the different pillars of the TEP and are currently operationalising the respective components in their curricula and courses. The PRT acknowledges with satisfaction that these new elements are not one-off initiatives but are properly incorporated in the course learning goals and the revised overall programme objectives. Following statements from both alumni and students, the panel welcomes in particular the dedicated mobility window in all bachelor programmes that allow to study abroad without incurring study delay.

In recent years, several master programmes have been adjusting their curricula to focus more on the application of scientific theories in practical situations, to hold more guest lectures, to offer more extra-curricular career development activities, and to programme courses or modules in data analytics and data science methods. The PRT notices that also in the master programmes these curriculum developments are integrated in the course learning goals and the programme learning outcomes. Moreover, several MSc degrees introduced a so-called extended master programme variant, where students can opt to perform a traineeship period as an additional but integral part of the curriculum. The panel was also informed that across TiSEM new partnerships have been identified and existing collaborations have been intensified with universities abroad to offer master students more opportunities for enrolling on a double degree. In this regard, TiSEM joined the Quantitative Techniques for Economics and Management (QTEM) network that brings together outstanding students, academic partners and international corporations.

The COVID-19 pandemic has impacted on the delivery of education. At the time of the site visit in May 2022, there are no specific government / university provisions that prevent programmes to be offered on site; most students have returned to the campus in Tilburg but some are reluctant or not in the position to be present full-time and prefer e.g. to combine digital education (online classes or taped recordings) with in-person attendance. The panel was informed that in order to target as broad a student audience as possible in the future TiSEM is contemplating more blended forms of education where face-to-face and online education reinforce and enhance each other. This development, in turn, may mitigate the consequences of a demographic trend which expects that the number of high school graduates will decline steadily in the years to come, notably in the regions where Tilburg University recruits most of its students.

Finally, the PRT notices that TiSEM has addressed the recommendations of the previous review panel to foresee an internship period in the curriculum without incurring study delays. Currently four bachelor programmes offer such opportunity and TiSEM has appointed an internship coordinator to oversee further developments. Furthermore, TiSEM discussed the point made by the previous panel that a second entry moment in master programmes may endanger their viability and jeopardise the logical build-up of the curriculum. This issue was discussed with all Academic Directors in 2019: together they decided to keep the second entry moment as it does attract a relevant amount of students who reportedly encounter almost no problems in terms of curriculum build-up. The exception to this rule (MSc Economics) will be discussed in the programme-specific section.

Language of instruction

The PRT read in TiSEM's Internationalisation Strategy that the School has been the forerunner within the University in the fields of offering English-taught programmes, student exchange and attraction of international students. Gradually other schools became increasingly aware of the strategic importance of internationalisation, which resulted in the Tilburg University Internationalisation Plan. This plan prioritises three action lines: promoting international student and staff mobility, internationalising the curriculum and the campus, and strengthening strategic cooperation abroad in research and teaching through international partnerships and networks. TiSEM's strategy covers the focus areas of the university yet is also broader and pays more explicit attention to the attraction of international degree-seeking students.

The panel gathers from the materials and the discussions that in line with these strategic priorities, a considerable part of the TiSEM portfolio consists of international English-taught programmes: at the time of the site visit, three out of six BSc programmes under review are taught entirely or mainly in English, as well as twelve out of thirteen MSc programmes. An explanation of the choice for English is included in the Self-Evaluation Reports of the programmes concerned and will be taken up in the next section.

Overall, the PRT thinks that the choices TiSEM made to offer a certain degree programme in Dutch or in English are clear, relevant and turned out to be effective in the sense that programmes offered in English do attract a reasonable number of international students and are taught by an international body of teaching staff. Moreover, the panel acknowledges the efforts of the University and the School to create an international atmosphere on campus, to internationalise the university services offering good quality support also to international students and staff, and to develop an international university community.

Student intake

The panel gathers from the data in the Continuous Improvement Review Report that the total number of TiSEM students has increased considerably since the previous accreditation visit from 6057 (in 2016-2017) to 7837 (in 2020-2021). This increase by 29% concerns bachelor students (+37%), pre-master (+10%) and master students (+32%). In the same period, the share of non-Dutch students rose from 13% to 15% while the percentage of female students (30%)

has been stable over the years. Looking at the student intake, the panel notices that the number of new students has grown every year, from 3585 (in 2016-2017) to 4775 (in 2020-2021). Details on the students numbers per programme, as well as on their dropout, progress and success rates are presented in the next section.

Discussing these figures with the School, the panel understands that a combination of factors may have contributed to the growth: the COVID-19 pandemic has prevented Dutch students from taking a gap year after secondary education while Tilburg University guaranteed that (international) students could take their courses online; moreover, programmes which underwent a curriculum reform (possibly coupled with a name change) often attract more students afterwards; finally, developments in individual programmes such as the abolishment of the *numerus fixus* in the BSc International Business Administration, the start of a new BSc Entrepreneurship and Business Innovation, and many more students from Universities of Applied Sciences decided to enrol in the MSc Supply Chain Management after following the pre-master programme. The connection between student numbers and individual programme developments will be analysed in the next section.

The admission requirements for a particular programmes are included in the respective Education and Examination Regulations. In principle, all (international) students with a completed secondary school degree – and possibly fulfilling specific admission requirements regarding language and/or mathematics – can enter a bachelor programme without further selection. Similarly, the master programmes have specific admission requirements regarding the domain(s) covered in the bachelor degree but there are no selection mechanisms that would allow only the best performing students among those who qualify to enrol. Bachelor graduates who lack specific competencies can complete a pre-master programme before they can enter a master programme. While specific admission requirements will be discussed in the next section, the PRT thinks that student admission at TiSEM is organised properly across all bachelor and master programmes under review.

Staff

The PRT gathers from the data in the Continuous Improvement Review Report that the total number of academic workforce at TiSEM has grown from 355 staff (284 FTE) in 2017 to 380 staff (320 FTE) in 2021. In the next five years a further increase in capacity by 10%-15% is foreseen. The academic workforce consists mainly of full (19%), associate (13%) and assistant professors (21%), as well as of lecturers (18%) and PhD candidates (25%). The school invests in 18 PhD positions every year. Since the previous accreditation visit, the balance between Dutch and non-Dutch academic staff has moved from 54% Dutch to 53% non-Dutch academics. The share of female academic staff has increased from 25% to 29%.

The panel understands from the materials and the discussions that it is a constant challenge to correctly anticipate the growth in student numbers both as a determinant of the education tasks and the direct government funding for the School. Moreover, matching staff capacity to student growth is hampered by two delays: first, there is a time lag between students enrolling (more numerous) and government funding (to offset the growth in student numbers); secondly,

increasingly more time is elapsing between the vacancy, the actual recruitment, and the effective starting date of academic staff. The PRT acknowledges that the former element is intrinsic to the financing system of higher education in the Netherlands and the latter element is due to the increased competition for academic talent in the international labour market.

In terms of staff quality, the PRT has looked at the CV's of the academic staff and found that teaching staff are invariably domain specialists with a good track record as researchers. The panel also welcomes the approach of Tilburg University and TiSEM to take into account not only research qualifications but also the track record in terms of education, outreach and citizenship as performance criteria for promotion. According to the panel, this approach reflects the strategic goals of the School to increase appreciation for education and stimulate societal relevance of research. The PRT acknowledges that these developments tie in with the Recognition and Rewards initiative, a nation-wide endeavour launched in 2019 to broaden people's academic career path. TiSEM fully supports this initiative as it helps to mobilise all talents in the School for realising its strategic goals.

The panel notices with satisfaction that TiSEM's statements in the written materials on the importance of (continuously investing in) high quality education are effectively put in practice: several staff indicated during the discussions that they benefit from a wide range of both formal (mostly university-wide) and informal (mostly TiSEM-based) professionalisation activities. Since the previous accreditation visit, TiSEM has made a big leap forward with the didactic training of teaching staff. For instance, it is university policy that all faculty have to obtain a university teaching qualification (UTQ): approximately 95% of TiSEM staff now hold such UTQ, while only 37% had it in 2017. Obtaining UTQ is included in the School's HR policy and constitutes one of the criteria for tenure. The basic level UTQ consists of a modular training programme on how to give lectures, work on course design, develop skills in course assessment, and supervise students in the thesis writing process. While UTQ focuses on course level activities, the senior level UTQ provides skills in developing, improving and/or safeguarding the quality of education at curriculum level. At the time of the site visit, about 25 staff at TiSEM hold this senior level UTQ and some others are in the process of obtaining it. Furthermore, the panel welcomes the efforts of the School to ensure that all teaching staff have an appropriate level of English, which they have to demonstrate by taking a compulsory English language proficiency test.

In addition to these formal qualifications, several programme directors and course coordinators indicated that there are a lot of informal exchanges at programme level with individual Academic Directors paying good attention to the quality of education and discussing individual course quality with course coordinators, and course coordinators monitoring the quality of the teaching staff for instance by attending lectures both informally (where possible) and formally (when needed).

Furthermore, TiSEM can rely on a team of good quality educational specialists who support Academic Directors and teaching staff in the development of the programmes and courses: curriculum construction, assessment, teaching and learning. When Covid-19 broke out, the

School organised seminars to support teaching staff with the switch to online education and assessment. Since the previous accreditation visit, TiSEM also made available financial and human resources to stimulate innovation in education: since 2018, a dedicated innovation manager coordinates all innovation initiatives and regularly meets with members of every department who act as influencers to their colleagues. The above-mentioned attention to learning analytics, and in particular the learning analytics project to get evidence-base insight into effective ways of teaching and learning, is part of this innovation agenda.

COVID-19 pandemic

The Self-Evaluation Reports contain dedicated sections to education and assessment in the COVID-19 period, which started in March 2020 and continued throughout the academic year 2020-2021 and part of 2021-2022. The panel gathers from the materials and the discussions that throughout the pandemic, the different schools of the university have worked together intensively to ensure continuation of education and assessment. At the start of the pandemic, all courses switched fully to online education. Lectures and tutorials were mainly offered via Zoom, and knowledge clips were developed for a number of subjects to offer a greater variety of online teaching methods. At TiSEM, the Management Team provided every Academic Director with additional human resources (0.5 FTE student assistant). Moreover, TiSEM programmes emphasised that regular communication and engagement with staff and students were important; for instance, course coordinators maintained their personal contact with students by planning informal discussion time before and after online courses. Right from the start, thesis supervision and defence have gone online: while guidance did not cause many problems, the online defence was less appreciated due to the missing social component. When the pandemic allowed for, the thesis trajectory was organised as a mixture of online and in-person meetings. Similarly, education activities such as lectures and seminars were organised on campus when this was allowed by the authorities; however, a digital alternative was also available (e.g. livestreams, video recordings) for those students who could not attend on site. As of September 2021, programmes have returned to education on campus – offering courses to groups of maximum 75 students - while making sure that students who are unable to attend are not left behind.

The PRT also acknowledges the efforts of the different stakeholders in organising assessment in the COVID-19 period. In the first weeks of the pandemic, it was decided centrally to postpone the course examinations of study unit 3 to the end of the academic year 2019-2020. Across the university, all Examination Boards were strongly involved in organising the exams in an alternative way: in case there were no alternatives for a given exam, all schools agreed to use the proctoring tool of Tilburg University. In the academic year 2020-2021, when there had been more time to consider alternative assessment formats, the number of courses that would use online proctoring in the examination periods in December and January was reduced to a minimum; exams in the second semester of 2020-2021 were held on campus with online exams being offered as an alternative to students with a special permission; the panel understands that similar provisions have been made for the entire academic year 2021-2022.

Notwithstanding signs of COVID fatigue leading to motivation problems and mental health issues, the PRT thinks that students and teaching staff have shown great resilience in times of pandemic. Students indicated both in their written contributions and during the discussions that there was certainly room for individual improvements, but that overall the emphasis on communication by the university, the school, the programme and the course coordinators has mitigated the impact of the pandemic. Student representatives appreciated that the institution, school and programme management really took into account the voice of students during the pandemic: they felt heard and appreciated, and were particularly satisfied that students were always represented in Faculty Council and Management Team meetings. The panel has seen an internal study by TiSEM indicating that changes to the education and assessment formats have not affected the study progress of students in the first semester of 2020-2021: according to the study there is no marked difference with the number of credits students obtained prior to the pandemic.

Finally, the PRT welcomes TiSEM's intention to draw learning from the education and assessment experiences during the pandemic and to explore some of the positive outcomes of this sudden and compulsory switch to online education in the future. The above-mentioned plan for developing and implementing forms of blended learning is an integral part of the School's considerations.

Assuring education quality

Although assuring the quality of education is assessed as part of the institutional assessment review (ITK), the PRT wants to emphasise in this report that both TiSEM and the degree programmes under review have taken considerable steps in this regard since the previous accreditation visit. Further to the recommendation of the review panel that a further formalisation of feedback loops would enhance the Assurance of Learning system, the School has invested strongly in activities for quality management and quality assurance of programmes. Internal quality assurance procedures were strengthened and the programmes are now working on their implementation. The current PRT notices that Assurance of Learning is embedded in the general TiSEM structure on quality assurance of programmes and courses: all stakeholders are expected to deliver high quality education, to reflect on this delivery and to improve it continuously. To this effect, TiSEM appointed an Associate Dean for Quality Assurance and Assessment and installed an Assessment Assurance Committee.

Furthermore, the quality of courses and programmes has been and continues to be monitored formally by Education Committees (composed of an equal number of staff and students) and informally by Sounding Boards where students provide input to programme management after every study period. The previous review panel had the impression that the success of the Sounding Boards was at the detriment of the then three Education Committees and suggested to reconsider the organisation of the Education Committees. The current PRT acknowledges with satisfaction that the considerations of the previous panel have been addressed and this even to a more comprehensive extent than foreseen. In the academic year 2017-2018, TiSEM implemented a new structure for Education Committees that not only operated closer to the programmes and the Academic Directors, but also ensured that advice from the Education

Committees would be aligned on those elements that regard all programmes. In 2020 TiSEM appointed an external agency to review the quality assurance efforts undertaken until then and got useful feedback for further improvements. At the time of the site visit in Spring 2022, the committees' connection with the Sounding Boards, the Faculty Council and the Management Team have been strengthened and structurally embedded. Furthermore, the number of Education Committees has increased from three to seven and lately even nine: every committee meets separately three times per year and in addition, there are meetings across committees to address overarching issues. The panel gathers from the discussions with student and staff representatives that the new structure constitutes an effective solution to the problems signalled before: while the overall quality of education has always been good, it is now much easier to point to individual weaknesses in courses and programmes and to monitor that recommendations to address these weaknesses are indeed implemented.

Communication and feedback

Before and during the site visit, the PRT has been inquiring about communication from the School and the programmes towards students. The discussions on site with students, professional and academic staff have shown the panel that there are many ways for TiSEM and its programmes to inform students about curricular activities, extra-curricular initiatives and student services. However, the panel does think the current efforts in information provision can be taken one level higher by paying specific attention to the dialogue dimension of communication: students undoubtedly are being informed of everything they need to know, but could be facilitated in digesting this information as good communication requires interplay between sender and receiver.

Similarly, the panel has been looking into the ways both School and programmes treat feedback from students and inform students about the follow-up to their input. The discussions have convinced the panel that student feedback is taken seriously by the School, that students feel safe to provide feedback and consider that their feedback makes a difference to improving the quality of education, assessment and services.

General considerations

The PRT considers that TiSEM has a strong teaching and learning environment. Although the quality of the individual teaching and learning environments per programme will be covered in the next section, the panel considers that the structure and the components of the respective curricula allow students to reach the intended learning outcomes. While each programme under review was judged positively during the previous accreditation visit, the panel observed with satisfaction that all programmes have adjusted their curriculum in an attempt to reflect the educational vision of the University and the priorities of the School.

Similarly, the panel thinks that the Internationalisation Plan of the School is reflected in the day-to-day delivery of programmes and courses. In this respect, the PRT acknowledges, accepts and supports the arguments of TiSEM to offer most of the programmes under review in English. While both students and staff are becoming increasingly international, the University and the

School are working actively towards creating a safe and diverse international atmosphere on campus.

Furthermore, the PRT considers that TiSEM has at its disposition sufficient and properly qualified staff to deliver the programmes. In this regard, the panel thinks highly of the professionalisation opportunities that are not only on offer but also taken up by the staff.

Throughout the visit, the panel has met with highly capable (associate) deans, programme directors and coordinators, academic and professional staff. The panel has sensed a positive spirit among all interviewees, as well as a clear commitment to TiSEM, its programmes and the different tasks each of them were expected to fulfil. Moreover, academic staff were often passionate about their discipline, the courses they teach, the programmes they relate to and showed commitment towards the students they educate and supervise. Students from their side were enthusiast about the programmes and most of their lecturers and supervisors and felt part of the university community; the panel has encountered a similarly positive attitude among alumni and representatives of the professional field.

In the strict sense of the word, there were no programme-specific facilities to assess. The panel, however, thinks highly of the efforts undertaken by all stakeholders at university and school level to mitigate the impact of the COVID-19 pandemic on education, assessment and the (emotional) wellbeing of students and staff. Similarly, the PRT welcomes the comprehensive way in which the School and the degree programmes under review have addressed the recommendations of the previous panel regarding the assurance of education quality. According to the panel, the School has shown a great resilience in the past few years that is impacting positively on the quality of the teaching and learning environment.

Conclusion

In sum, PRT considers that the teaching and learning environment for the 19 programmes under review is robust. This appreciation extends also to the three main components of this standard: curriculum, staff and facilities. Although certain programmes are doing better than others on individual components of this standard, the panel considers that the design and contents of the curriculum, the quality and quantity of the staff and the education facilities at TiSEM enable students to reach the intended learning outcomes of their respective programmes. As a result, **the Peer Review Team judges that each programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

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

Assessment policy

The PRT gathers from the written materials that assessment at TiSEM is organised in line with policy documents and frameworks which have been issued at both University and School level.

TiSEM's Assessment Policy has been aligned with Tilburg University's Assessment Policy (2020) and Assessment Framework (2019). Moreover, in its assessment policy and principles, TiSEM takes into account the provisions of the Dutch Higher Education and Research Act, the NVAO accreditation framework and the standards and requirements of AACSB. In 2020, TiSEM strengthened the organisation of its assessment by appointing an Associate Dean Assessment and Quality Assurance and by expanding the Assessment Support Team.

In its vision on assessment, Tilburg University promotes the didactic principle of constructive alignment: assessment is an integral part of the education process and should be aligned with both learning outcomes and educational activities. Based on this university-wide vision, TiSEM has formulated seven assessment principles. According to the School,

- Assessment is outcome based: it specifies clear goals and criteria;
- Assessment can have a summative function, a formative function or both;
- Assessment activates and motivates students: it has a positive effect on student learning;
- Assessment is fair in the sense that it caters to diversity and equal opportunities;
- Assessment meets the quality requirements validity, reliability and transparency;
- Assessment is feasible considering both student and faculty workload;
- Assessment fulfils an evaluative function.

Studying the School's 2021-2022 Assessment Policy the PRT finds it a comprehensive document that sets out clearly the vision on assessment of TiSEM and provides rules and guidelines to ensure the quality of assessments at the level of degree programmes, of individual courses and in supervising and assessing theses.

A key element of the School's assessment policy is that each programme puts together an assessment plan. The PRT understands from the discussions on site that such assessment plans exist already for a long time, but that the School and the degree programmes have strengthened these plans in line with the recommendation of the previous review team in 2017. Looking at the individual assessment plans, which had been put at disposition prior to the site visit, the panel notices that they stipulate for each course the alignment with the programme learning outcomes, as well as the different formats of individual and group assessments and their respective weight. According to the PRT the current assessment plans reflect the recommendations of the previous accreditation team: the plans now serve as communication tool, emphasise the coherence of the individual programmes and make course coordinators aware of the position of their course within a programme. The assessment plans also serve as a monitoring tool for Academic Directors to ensure that, taken all together, courses cover all programme learning outcomes and that students can demonstrate through a broad range of individual and group assessment formats that they achieved the learning outcomes. In terms of assuring the quality of assessment, the panel welcomes the yearly approval of the assessment plans by the Board of Examiners.

Quality of tests

The discussions on site confirm according to the PRT that the different provisions of the assessment policy work out in practice. The guidelines on course-level assessment are further

elaborated in the Handbook for Constructing and Grading Course Assessment. Teaching staff indicated that this handbook is a useful tool, which provides examiners with detailed instructions for constructing and grading course assessments. When needed, they can also rely on input from the Assessment Support Team: professional staff with specific expertise in assessment who support individual examiners in creating and evaluating assessment tasks and advice the School and programme management in their tasks and responsibilities. Moreover, course coordinators mentioned to the PRT that they regularly meet among themselves and with the Academic Director and the Education Coordinator to ensure that their individual assessment formats are consistent with each other and within the overall programme.

Students indicated both in their student chapters and during the site visit that the day-to-day organisation of assignments and exams is in line with the provisions and principles of the assessment policy. Both within and across courses there is a variety of assessment formats, and information on course assignments and assessments is provided in a transparent way by the teachers and in the course manuals and the online course descriptions (Osiris). Students did mention, however, that there is a lot of difference in how individual teachers treat assessment in their courses: some provide proactively extensive and timely feedback, even at individual level in group assignments, while other examiners take a more passive stance. Students anyway appreciate the opportunity to inspect their exams and their assignments; when they have doubts about grades, they can ask for clarification and obtain feedback on their score.

Quality of thesis assessment

As part of its overall assessment policy, TiSEM has developed a thesis assessment policy that is relevant for both thesis coordinators and staff involved in supervising and assessing theses. In line with its provisions for course assessment, thesis assessment follows the principles of validity, reliability and transparency. In order to cater for the diversity of bachelor and master programmes and their respective theses, TiSEM has designed thesis assessment forms as basic frameworks that can be adapted to the specific requirements of individual programmes. Each thesis assessment form contains clear assessment criteria that are derived from the intended learning outcomes; to ensure reliability each thesis is always assessed by the supervisor and a second independent assessor based on the assessment form; thesis manuals are available to students and give full information about the thesis supervision process and assessment.

The PRT understands from the discussions that TiSEM has been using dedicated thesis assessment forms for quite some time already. The previous review panel indicated that these forms contained relevant criteria but were not used in an optimal way: while assessors often graded the thesis properly, they did not provide sufficient qualitative feedback to motivate their scores. The current PRT read in the Self-Evaluation Reports and in the thesis committee report that the criticism of the previous panel has been addressed: every Academic Director has requested thesis supervisors to take care of a correct motivation of their assessments, and the topic of grade motivation in assessment forms was addressed by the Vice-Dean Education in the annual talks with the Academic Directors. TiSEM also intends to set up Thesis Dossiers for all programmes to monitor the entire thesis trajectory including the qualitative motivation of

the thesis grading. The panel understands that while this plan should have been activated by now, it was delayed by the COVID-19 pandemic.

In the months prior to the site visit, a committee of independent experts (see introduction) reviewed for each programme a sample of theses and completed thesis assessment forms. The findings of the experts on the thesis quality (see standard 4) and the quality of the thesis evaluation were compiled in a thesis committee report under the supervision of the PRT vice-chair and shared with the PRT members prior to the visit. The thesis committee noticed that for each individual programme the thesis trajectory is clearly outlined. Each programme is using a dedicated thesis evaluation form, which is completed by two assessors, the thesis supervisor and a second reader. Across all programmes the thesis committee established that the 'paperwork' is organised properly: the accreditation team at TiSEM - with the support of the respective programme representatives - managed to identify and make available the selected theses and their evaluation forms quite rapidly. Moreover, in case an individual thesis / evaluation did not prove to match, the correct materials were put at disposition swiftly.

Furthermore, the thesis committee reported that 86% of the thesis evaluation forms had been completed in an informative way: in 245 out of 285 cases, the experts answered affirmatively on the question: "Based on the evaluation form, is the assessment of the thesis clear and insightful?" A clear and insightful assessment means that assessors give (differentiated) scores for each sub-criterion to arrive at a final grade and motivate why a thesis deserves a certain overall grade or scores better on some criteria than on others. The PRT agrees with the thesis committee that over the past few years, the programmes are not only having adequate thesis assessment forms but have also been using these in a much better way than before.

Notwithstanding this high share of insightful assessment forms, the thesis expert reviews also show that there is still some diversity in the way individual assessors complete the evaluation form. This diversity is visible in three ways: whether or not (all) assessors motivate the (sub)scores with written and insightful feedback; whether or not (all) evaluation forms provide separate appreciations from the respective assessors (or merely a compilation of the findings of both assessors); and in the latter case, whether or not (all) second reviewers provide a proper motivation of their own individual appreciation (or merely confirm the findings of the supervisor). This diversity, as well as the varying degrees of insightful comments, will be described for each programme separately in the next section.

Assuring assessment quality

The PRT read in the Self-Evaluation Reports that as part of its assessment policy, TiSEM has set up an assessment organisation with a clear division of roles and well-defined tasks and responsibilities of everyone involved. A distinction is made between those who are responsible for facilitating assessment quality ex-ante and those responsible for assuring assessment policy. A key player in the assessment organisation is the Examination Board, an independent body that has the legally assigned task to assure the quality of exams and the legitimate conferral of degrees. It advises management, Academic Directors and Course Coordinators, and deals with individual student requests. The Examination Board also checks that assessments are organised

and administered in accordance with the School's Assessment Policy and the Education and Examination regulations of the TiSEM degree programmes. According to Dutch Law, the Examination Board has the power to appoint and revoke the appointment of examiners.

The previous panel recommended TiSEM to strengthen the capacity of the Examination Board in order to have it monitor more systematically the assessment quality and by doing so contribute to the ambitions of the school to improve the quality of its education. As a response to this recommendation, TiSEM installed an Assessment Assurance Committee. Working under the mandate of the Examination Board, the Assessment Assurance Committee monitors the compliance of course-level assessments and monitors the quality and transparency of the thesis grading, both based on predetermined TiSEM quality standards.

During the visit, the PRT spoke with representatives of both Examination Board and Assessment Assurance Committee. The panel was informed that the Assessment Assurance Committee had some difficulties in getting started but that there currently are no impediments anymore: it consists of eight academic staff representing all TiSEM departments. Its tasks are laid down in a Foundation Document and the committee has the intention to screen every course at least once in between accreditations. To this effect, it is supported by a team of assessment specialists who conduct quality reviews based on a standardised checklist and report any problematic situation to the committee. Periodically, reports are drawn up in which the findings of the screenings are analysed on an aggregate level and, if necessary, translated into adaptations of the Assessment Policy Plan. The PRT gathers from the discussion with the Examination Board that there is one board for all degree programmes at TiSEM: its seven members are very experienced and together cover all programmes; the five secretaries are legally trained and considerably facilitate the tasks of the Board. The external member of the Examination Board has a strong value added as assessment expert employed by the Fontys University of Applied Sciences.

Preparing for the site visit, the PRT read the most recent – and highly informative - reports prepared by the Assessment Assurance Committee and Examination Board. The panel was struck by the fact that, contrary to other reports, the annual report of the Examination Board was written in Dutch. According to the chair of the Examination Board, there is no legal requirement to do so but is the pragmatic result of a Board that consist entirely of Dutch and Dutch speaking staff. The PRT invites the Board and the School management to consider changing the working language of the Examination Board to English in order to attract also international academic staff.

General considerations

The PRT considers that the degree programmes at TiSEM can rely on a robust system of assessment. The assessment principles and policies at both University and School level are clear, well aligned and properly operationalised in the respective programmes. In terms of assuring the quality of assessment, the panel considers that the Examination Board has a huge remit which it is handling very competently.

The PRT thinks highly of the efforts undertaken by TiSEM to address those parts of the assessment system that the previous review panel earmarked for improvement. Some elements such as the assessment plans and the thesis assessment forms already exist for a long time but are now used in a better way than before and this across all/most programmes. Similarly, the panel welcomes the appointment of an Associate Dean Assessment and Quality Assurance, as well as the creation of a dedicated Assessment Assurance Committee and an Assessment Support Team to ensure and increase assessment quality across courses and programmes.

Based on the written materials, the discussions on site and the report of the thesis committee, the PRT considers that assessment has not only improved on paper, but also in the day-to-day reality of the respective courses, theses and programmes. The panel endorses the findings of the thesis committee that all programmes are using good quality thesis assessment forms and that in a qualified majority of cases (85%) these forms are not only completed properly but also in an insightful way. Hence, the PRT considers it fair to state that thesis assessment is an integral part of the overall assessment system at TiSEM and that over the past few years assessors, course coordinators, programme and school management have given it the attention it deserves.

Conclusion

In sum, the PRT considers that assessment is well organised at TiSEM in general and in the individual programmes under review in particular. Although some programmes have more variety in assessment formats and/or provide more insightful feedback in thesis assessment forms than others, the panel considers that the assessment policy, the course assessments, the thesis evaluation and the work of the Examination Board and the Assessment Assurance Committee all contribute to a strong quality culture across TiSEM and its degree programmes. As a result, **the Peer Review Team judges that each programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

The programme demonstrates that the intended learning outcomes are achieved.

Quality of the thesis

According to TiSEM's assessment policy, the thesis serves to prove that students have reached the final attainment level of their programmes and deserve to be awarded the degree attached to it. In the months prior to the site visit, a committee of independent experts (see introduction) reviewed for each programme a sample of 15 theses and completed thesis assessment forms. The findings of the experts on the quality of the thesis evaluation (see standard 3) and on the quality of the thesis were compiled in a thesis committee report under the supervision of the PRT vice-chair and shared with the PRT members prior to the visit. Overall, 21 experts reviewed 285 theses related to the 19 degree programmes covered in this report.

In order to make a valid selection of theses, TiSEM provided per programme an overview of the theses that had been submitted and accepted in the academic year 2020-2021. Each overview contained the title, student number, score and supervisor of the theses concerned. When these lists did not contain a sufficient number of theses, the selection was extended with older and/or more recent theses. The thesis score was the key determining factor in the selection. The committee secretary calculated the total number of theses accepted per programme and the number and percentage of theses that received a low score (between 5.5 and 6.9), average score (between 7.0 and 8.4) and high score (at least 8.5). The committee chair / PRT vice-chair and the secretary then made a selection of the theses to be reviewed ensuring a fair distribution among the scoring categories. In order to have all scoring categories properly represented in the sample, the ratio of the lowest graded and highest graded theses was rounded up. Altogether, experts reviewed 56 theses (20%) with a lower score, 175 theses with an average score (61%) and 54 theses (19%) with a higher score. The selection also took into account the existence (or not) of programme tracks / specialisations, the academic year in which the thesis was submitted, and looked for a possibly wide range of thesis supervisors. Details on the selection process per programme are provided in the next section.

At the level of thesis quality, the committee members indicated that overall 99% of the theses reviewed across all programmes fulfilled at least the minimum criteria one would expect of a final product of academic orientation at bachelor or master level. In 281 out of 285 cases, the experts answered affirmatively on the question: “Is the thesis of sufficient quality to pass?” In case of a negative answer, a fellow expert was asked to do a second reading: in two cases the second reviewer thought the thesis did fulfil (at least) the minimum criteria. The two other cases where both initial and second reviewer thought the thesis did not meet the minimum criteria concerned two different master programmes each featuring one case. All second reviews were quality controlled individually by the committee chair. The PRT endorses the overall findings of the thesis committee and acknowledges that in all programmes, the thesis quality is (at least) adequate and well beyond the threshold of 90% set by NVAO.

In terms of scoring, the committee noticed that theses tend to get adequate scores, i.e. an overall mark that does justice to the quality of the thesis. This finding is valid for all programmes under review. Prior to the review exercise, it was agreed that experts would flag cases where the thesis score differed (at least) one point from their own appreciation. All in all, the committee agreed to 92% of the thesis scores. In 261 out of 285 cases, the experts answered affirmatively on the question: “Do you agree to the score given by the assessors?” Experts agreed slightly more often to the final scores of bachelor programme theses (93%) than to the master theses (91%). Following on from their positive finding on thesis scoring, the experts agreed very often with the ranking of the theses within the sample: final products with a higher score proved indeed to be of a better quality than theses with a lower score. The PRT endorses the findings of the committee regarding the thesis score: it particularly welcomes the fact that so many different experts come to the same conclusion, i.e. that assessors in every programme do (almost) equally well in giving theses an adequate score.

Notwithstanding the overall positive findings, the experts did report in a differentiated way on how they perceived thesis scoring across programmes. In addition to the above-mentioned 24 cases, experts also found a range of small differences of 0.5 point. This divergence could go two ways: either upwards or downwards. Looking across all programmes under review, thesis experts more often considered that students deserved a (slightly) lower mark. Finally, in most programmes, the overall thesis score is calculated on the basis of (quantitative) marks or (qualitative) appreciations per thesis component or assessment criterion. Experts reported that in several cases, there was no or hardly any differentiation in the sub-scores per component. While they agreed on the overall score, experts reported several times that more differentiated sub-scores would reflect better the sometimes differing quality of the individual components within a thesis. A detailed analysis on this latter point and on the reported divergence in scoring is provided in the section on programme-specific findings.

Performance of graduates

Another way to establish whether the programme learning outcomes have been achieved is by looking at what graduates are doing after they finish the programme. The PRT learned that Tilburg University participates in the National Alumni Monitor, which gives insight into how recent graduates are doing in the professional field. According to this Monitor, 97% of the TiSEM (master programme) graduates from 2020 were employed in 2021; very often these recent graduates have a permanent contract, work full-time and were hired to perform at master level. About 10% is working abroad, 34 % found employment in the province of Brabant and over half of the graduates are working elsewhere in the Netherlands. The National Alumni Monitor also enquires about the satisfaction of graduates with their (master) programme: 61% of TiSEM graduates is satisfied and 28% is very satisfied, while 81% would start all over again with the same programme at the same university. Across TiSEM, 75% of the graduates consider that their master programme constituted a (very) good starting point for entering the labour market; a similar share (78%) thinks the master programme was a (very) good starting point to further develop knowledge and skills. Asked which aspect they liked most, graduates are particularly satisfied with the academic skills they acquired and with the content of the programme. In terms of professional capabilities, TiSEM graduates consider they were well prepared to deal with complex issues and go gain knowledge independently.

During the site visit, the PRT spoke with a number of alumni: the picture they drew of their study period at TiSEM confirms the above data from the National Alumni Monitor. Alumni were thankful for the really high quality of the programmes they had followed and were particularly positive about the importance TiSEM programmes attach to critical thinking; alumni thought they had gained a deep understanding of the problems at hand and also appreciated that they were encouraged to not only learn in class, but also get as much out of their student time as possible. Finally, these alumni confirmed a finding from the latest Tilburg University Alumni Report (2021), which states that a majority of TiSEM students finds a job within two months after graduation and – compared to the average salary of Tilburg graduates – tends to get a somewhat higher wage during their first job.

Furthermore, the PRT was informed that both the University and the School are in need of more up-to-date information on career prospects at programme level: students want to know what their options are on the labour market and programme management is interested in where students are heading. As a result the Data Enrichment Labour Market Information pilot was launched in collaboration with Student Career Services to make the university database of over 80,000 alumni more of use (e.g. for accreditation and reviews) to the respective programmes at Tilburg University. While this information was lacking in previous editions of the Annual Alumni Report, the latest 2021 Report features a better categorisation of alumni job profiles. It is expected that specific information at the level of individual programmes will not only enhance the connection between education and the labour market, but could also be a source for attracting new students.

What students do after graduating their specific degree programme, which positions they assume on the labour market and how they look back on their study period in Tilburg is covered in more detail in the programme-specific sections. Overall, the PRT has a positive impression on the professional whereabouts of the TiSEM alumni, which seem to confirm that the programme learning outcomes are not only achieved at the end of the curriculum but also constitute a good basis for a professional career.

General considerations

Bachelor and master theses indicate to what extent students have achieved the intended learning outcomes. Having established that 99% of the comprehensive thesis sample was at least of acceptable quality, the PRT considers that students who graduate from a TiSEM degree programme have indeed achieved the programme learning outcomes at the end of the curriculum.

The size of the thesis review exercise (19 degree programmes) in terms of sample (285 theses) and reviewers (21) demonstrates according to the panel that TiSEM in general and the degree programmes in particular pay careful attention to the position of the thesis as final end level product. Moreover, the PRT is impressed by the fact that so many different assessors across all programmes under review manage to come to final scores that are almost invariably (92%) considered as balanced and adequate by their peers of the thesis committee.

The PRT considers that the programme learning outcomes, which students achieve when they successfully finish their thesis, also constitute a good basis for a follow-up study or a professional career. The data on the performance of TiSEM alumni and the discussions with individual alumni demonstrate according to the panel that alumni find their way after their study in Tilburg. Moreover, the PRT is satisfied that alumni reflect particularly positively on those aspects of their study that constitute the basis of a university training: high quality programmes, critical thinking, in-depth understanding of disciplinary issues and a disposition towards life-long learning.

Conclusion

In sum, the PRT considers that across all programmes under review, students who pass the thesis invariably achieve the intended learning outcomes and are therefore entitled to graduate. Moreover, TiSEM graduates across programmes manage to find a job quickly and move on to relevant positions in a follow-up study or on the labour market. Although the overall quality of the thesis sample and the adequacy of the final thesis scores differ slightly across individual programmes, the panel considers that all degree programmes do very well in terms of achieved learning outcomes. As a result, **the Peer Review Team judges that each programme meets standard 4, achieved learning outcomes.**

Specific Findings and Considerations - Bachelor programmes

In the previous section, the Peer Review Team established that all nineteen degree programmes submitted for external assessment meet each of the four standards of the NVAO evaluation framework: intended learning outcomes, teaching-learning environment, assessment, and achieved learning outcomes. This section addresses the panel's programme-specific findings, considerations and recommendations.

While all programmes adhere to the PRT's general findings and considerations, the panel has come across particular strengths in each programme, as well as points for attention. These individual strengths are worth recording to demonstrate that a given programme is doing better or is more advanced on one or more standards than what was established in the previous section; similarly, the PRT reports on programme-specific flaws and may issue recommendations for the future: these points for attention are important yet do not affect the PRT's overall positive judgement per programme and standard.

The programme-specific findings and considerations are largely based on the dedicated self-reflections and student reports, on the findings from the thesis review per programme, on the additional clarifications provided by the programme teams prior to the site visit and during the discussions on site with management, staff, students and alumni.

1. BSc Business Economics

The bachelor *Bedrijfseconomie* (Business Economics, BE) is a three-year full-time 180 ECTS programme taught in Dutch. It is a broad programme that focuses on the core disciplines of a business - accounting, finance, management and marketing – on related disciplines such as economics, tax economics and company law, and on the interaction between businesses and their environment. The BE programme is intertwined with the BSc Economics and Business Economics and the BSc Tax Economics at TiSEM through a joint first year.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention of these programmes to the developments in their respective professional domains are all valid for this particular bachelor programme BE.

The panel gathers from the interesting benchmark with Dutch universities that as a domain of study, BE is positioned somewhere in between Economics and Business Economics (EBE) and Business Administration (BA). While EBE programmes at most other institutions have a clear focus on economics, accountancy and finance, the BE programme in Tilburg also pays attention to management and marketing. The BA programmes tend to emphasise on management. Other

programmes have more options for specialisations through tracks or majors; BE students choose a field for their bachelor thesis: accounting, finance, management or marketing.

The PRT has studied the set of intended learning outcomes. Compared to the previous accreditation, the learning outcomes have not changed much in substance, but were reformulated and aligned with the structure of the Dutch Qualification Framework (NLQF) at bachelor level 6. In their new formulation, the learning outcomes continue to reflect the internationally accepted Dublin Descriptors and are concrete in terms of content (business economics), level (bachelor) and orientation (academic). The PRT appreciates that the newly added outcomes on responsibility and independence explicitly reflect the Character pillar of the Tilburg Educational Profile.

In terms of programme portfolio, the PRT discussed the common and differentiating features of this BE programme and three other bachelor programmes offered by TiSEM: Economics, Tax Economics (TE) and Economics and Business Economics (EBE). The panel was informed that there is a clear difference both in substance and in language between the English language Economics programme on the one hand and the three other programmes who share a common first year. After the first year, however, the overlap in programme objectives and course contents is also limited between BE, EBE and TE. The respective programme teams have been/are using the programme revisions (learning outcomes, curriculum courses, assessment formats) to emphasise the specific character of the programmes. These differences and the respective programme objectives are emphasised in Open Days. Students tend to choose the most relevant programme based on their motivation but are allowed to switch programmes after the first year. The teaching staff indicated that while the specificity of the respective programmes, learning outcomes and courses are outlined on paper, there is room for communicating this more explicitly in class. According to the PRT, the discussion has clarified the position and demonstrated the unique character of the respective programmes.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the current set of learning outcomes properly reflects the content, level and orientation of the BE programme. It addresses all competencies and reflects the key values of the university and the school. The panel considers that there is a clear rationale for offering a dedicated bachelor programme in BE at TiSEM. It encourages the programme management and teaching staff to continue their communication efforts towards (potential) students.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The PRT's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the three-year programme is well thought through. The curriculum is built along five learning lines: Accountancy, Finance, Management, Marketing, and Research Methods and Techniques. All courses in the first two years are mandatory; it is a deliberate choice to limit the number of electives because the goal of the programme is to educate students equally on the core disciplines of BE. While students would prefer some more freedom in setting their own study plan, they do understand the rationale behind the fixed curriculum and see the equal attention to four domains as a value added of the programme.

The curriculum has been adjusted somewhat since the previous accreditation visit, both in terms of contents and course structure. Content-wise courses take on board the themes that are important to the entire school and university, such as sustainability, responsibility and business ethics. In the fifth semester, BE students can now choose between an exchange period, an internship with electives or a minor with electives. The PRT welcomes the adjustments as well as the choices BE students are offered in the fifth semester.

The bachelor thesis constitutes the logical conclusion of the three-year programme. Students pursue an individual research in one of the four BE domains. The panel gathers from the student contribution that there is room for improvement in the way the thesis trajectory is organised. Students indicated that the programme offers only limited room for choosing a thesis topic; moreover, as students have to register with one of the four domains before they are provided with possible topics, there is little time to orient themselves and delve deeper into the topic. According to the programme team, the broadly formulated topics leave sufficient room for students to carve out their own specific niche of interest. According to the panel, the programme could communicate the thesis topics more in advance, leaving students the time to orient themselves across the disciplines before they register for a domain and start fine-tuning the thesis topic of their liking.

Over the past five years, the BE student intake has decreased from 366 to 285 per year with total student numbers ranging from 1064 (in 2018-2019) to 818 (in 2021-2022). There is no obvious explanation for the decrease, according to the programme team; one possible reason could be that students who plan to study in Tilburg have the choice among five bachelor programmes at TiSEM with a focus on economics and management. Given that it is a Dutch language programme, BE cohorts are homogeneous in terms of nationality; 70% of the students are male, although the share of female students has increased in recent years.

In terms of drop-out and study progress, the BE programme is doing rather well. Roughly 30% drops out in the first year while 75% of the students obtain a positive BSA. Around half of the students with a positive BSA finish the programme within the nominal duration and 80% does so in four years.

The BE programme features 25 compulsory courses including the thesis; almost all course coordinators and lecturers are Dutch. Each course features a coordinator and a team of lecturers

and PhD students to deliver tutorials. In total 119 teaching staff are involved in the programme representing three different Schools and six Departments at TiSEM. Students appreciate the teaching staff for their know-how, didactical skills and availability: they provide opportunities for questions and discussions in class and sometimes host guest lecturers to put theory into practice. Finally, students were highly positive about the student advisor of the BE programme, who is of great value to the students.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the BE courses connect neatly to the overall programme objectives. Moreover, the PRT considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable BE students to reach the intended learning outcomes.

The curriculum adjustments have made the BE programme even more relevant than before. In this regard, the panel appreciates the opportunity for students to either study abroad or undertake an internship as part of their regular curriculum. It also endorses the students' praise for the teaching staff and study advisor.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this particular bachelor programme BE.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment formats are varied, that individual BE courses tend to use different forms of assessment and that these tests benefit the course learning goals and contribute to the overall programme learning outcomes.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that assessors use an appropriate evaluation form to report on their assessment of the BE bachelor theses: according to the thesis experts, the criteria are varied, relevant and described in detail. Moreover, the form invites assessors to score each criterion and motivate their appreciation in writing. Both supervisor and co-reader complete a separate form. The calculation of the final grade is explained on the form. One expert reported that the structural elements of the theses are to some extent reflected in the evaluation form. This link between the structure of the thesis and the evaluation form has great advantages for students and evaluators: it helps students to tackle complex problems and gives them insight into the evaluation process (transparency), while the

structural approach also facilitates the evaluation process of the assessors and guarantees an objective assessment (high interrater reliability).

The experts noted that in fourteen out of fifteen cases, the evaluation form was completed in a satisfactory way: in these cases, they agreed with the assessments in terms of (quantitative) scoring and (qualitative) feedback. In many cases detailed comments were given, which were consistent with the scores and clearly indicated both the strengths and the weaknesses of the respective theses. This kind of feedback is useful for students as it allows them to improve their literature review and research skills. In other cases the feedback was consistent but quite generic. In only one case the experts thought the comments were too general and not sufficiently insightful.

While both assessors completed the evaluation form separately, the experts reported that in several cases the comments and scores of the two assessors were identical. One expert indicated that some of the comments in the evaluation form – notably regarding data analysis - could have been communicated to the students earlier in the thesis production phase: getting this appreciation beforehand would have guided the students in their work and improved the overall quality of their work.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this BE programme.

In addition the PRT endorses the findings of the thesis committee that the quality of thesis assessment is good. Compared to the previous accreditation visit, the current PRT welcomes the enhanced quality of the evaluation form and above all the growing number of assessors who provide insightful feedback to motivate their sub-scores and overall grade.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The PRT's general findings on thesis quality and graduate performance at TiSEM are valid for this bachelor programme.

The final project consists of a thesis which accounts for 12 ECTS. The panel gathers from the materials that BE students can opt for a thesis in the field of accounting, finance, marketing or management; in case of the latter they can focus on strategic management, information management or supply chain management. The PRT endorses the motivation of this Dutch-

language programme to have students write their theses in English because it will prepare them for a follow-up programme and because most academic literature is in English.

As part of the external assessment of this programme, a team of experts on the thesis committee reviewed a sample of 15 BE theses. The thesis selection was based on a list featuring 233 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (38% - 53% - 9%) in the sample, the experts reviewed 6 low quality, 8 average quality and 1 high quality theses that had been assessed by a variety of supervisors and second readers. The sample included theses from the four programme variants Accounting, Finance, Management and Marketing.

According to the thesis experts, each of the fifteen theses was clearly of sufficient quality to pass; hence none of the documents were submitted to the thesis committee for a second opinion. In terms of grading, the experts agreed to all final scores given by the respective assessors. As a result, the ranking of the theses was adequate: theses with a higher score were indeed of better quality than those receiving a lower grade, while theses with an identical grade were of comparable quality.

Overlooking the entire sample, the experts reported that the theses often went beyond generic quality: they were well structured, featured specific research questions, developed hypotheses, paid attention to the limitations of the work, contained extensive reference lists and discussed the literature in an integrated way.

Several theses consisted of a literature review with students developing hypotheses based on the literature. The (few) theses that also did empirical research (using primary data) were often of better quality and deservedly got a higher score. According to the experts, including empirical / academic research in a thesis definitely constitutes a value added for the (achieved) learning outcomes of the student. The programme team indicated that students who only produce a literature review also achieve the learning outcomes as in the run-up to the bachelor thesis, they have followed several courses in which research methodology is trained and tested.

In addition to these positive findings that were shared by all experts reviewing BE theses, individual thesis reviewers mentioned that they were not always impressed with the writing style, the academic language used and the English language quality of the report; another expert thought that the choice of the research method could be motivated better and the chosen method itself explained in more detail; still another expert found that students could indicate better what they have done as part of the thesis: research design and data collection were sometimes presented as if the described study still needed to run while results were not always properly reported.

The PRT was informed that students with a bachelor's degree in BE have direct access to a broad range of master programmes at TiSEM. Moreover, they can apply for TiSEM's research master programme, at the Tilburg School of Social and Behavioural Sciences or with other universities in the Netherlands and abroad. The vast majority of BE graduates continues at

TiSEM, notably in the fields of Accountancy, Finance and Strategic Management; the remaining 15% pursues a master programme elsewhere. Hardly any student enters the labour market directly upon graduating the bachelor BE.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that BE graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the bachelor thesis is good.

Furthermore, the PRT welcomes the many opportunities for BE graduates to proceed directly with a relevant follow-up master study and considers that they are successful in doing so.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the PRT considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this BE programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this bachelor programme Business Economics at the Tilburg School of Economics and Management of Tilburg University.**

2. BSc Econometrics and Operations Research

The bachelor Econometrics and Operations Research (EOR) is a three-year full-time 180 ECTS programme taught in English and partly in Dutch. It is a quantitative programme offering mathematical models to describe and analyse everyday problems that arise in business and in the public sector. Students are taught how to use mathematics to optimise processes, simplify procedures or analyse sets of data.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention of these programmes to the developments in their respective professional domains are all valid for this particular bachelor programme EOR.

The panel gathers from the materials that dedicated (bachelor) programmes in EOR only exist in the Netherlands and are offered at several universities. A common characteristic of all these programmes is a strong basis of mathematical and statistical courses, which are then applied in highly quantitative courses in applied areas. The focus on specific applied areas differs slightly across programmes; TiSEM emphasises on the domains finance, actuarial science, business analytics, operations research, mathematical economics, and econometrics. According to the student contribution, one of the main differences they observe between Tilburg and (its main competitor in) Rotterdam is the emphasis of the EOR programme at TiSEM on hard skills, compared to the focus on soft skills in Rotterdam.

Furthermore, the panel was informed that over the years the area of operations research has expanded to include also business analytics. While the focus used to be only on optimisation, the programme now also looks into the development of skills and technologies to investigate business performance data in order to gain insight and drive business planning.

The PRT has studied the set of intended learning outcomes. Compared to the previous accreditation, the learning outcomes have not changed. They will be adjusted as part of a broader programme revision in view of the academic year 2022-2023. The panel notices that the current learning outcomes are broken down in knowledge, skills and attitude, that they reflect the internationally accepted Dublin Descriptors and that they are sufficiently concrete in terms of content (econometrics and operations research), level (bachelor) and orientation (academic).

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the current set of learning outcomes reflects the content, level and orientation of the EOR programme. The panel invites the programme team to use the envisaged revision to update and sharpen the intended learning outcomes - in line with similar exercises already

undertaken in other programmes – in order to reflect the key values of the university and the school, as well as the new developments in the domain(s) of econometrics and operations research.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The PRT's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the three-year programme is well thought through. It consists of several learning lines throughout the entire curriculum. The first year focuses on mathematics and statistics but also pays attention to the applied areas of Business Analytics, Operations Research, Quantitative Finance, Actuarial Science, Econometrics and Mathematical Economics. While the first two years are common to all EOR students, there is room in the third year for differentiation (five electives) and specialisation (BAOR, QFAS, EME). In the first and second year courses Improving Society Lab, students make the connection between theory and practice: they attend presentations from professionals in the field and work on concrete cases where they put their knowledge into practice. Students indicated that they appreciate the structure of the programme, that they like the Improving Society Lab courses and that they find the study load tough but feasible.

Compared to the previous accreditation visit, the current PRT notices that EOR students have now more options to study abroad without incurring study delay. This so-called mobility window is one of the characteristics of the Tilburg Educational Profile. Moreover, particularly talented and/or ambitious students can expand their regular study programme with a supervised research project in the framework of the CentER Honours programme or join the university-wide Outreaching Honours programme with modules that challenge students to reflect on themselves and prepare for a responsible role in society.

In line with its overall appreciation of the choices TiSEM makes regarding the language of instruction in its degree programme, the PRT endorses the approach of the EOR programme: while the entire curriculum is taught in English, the first year courses on mathematics and statistics are also offered in Dutch. In this way, the transition for Dutch secondary school graduates is smoothed and students can engage with the strong quantitative character of these (challenging) courses in their native language.

Over the past five years, the average intake was about 160 students, which is an increase compared to the 120 students in the previous period. The total number of EOR students increased from 467 (in 2018-2019) to 539 (in 2021-2022). Over the years the share of

international students in the cohorts remained around 11%; roughly half of these international students are non-European, mainly from Asia.

Across the Netherlands, EOR programmes have the reputation of being challenging, which results in high drop-out rates and slow study progress. Hence, the PRT has inquired about the situation in Tilburg before and during the visit. At TiSEM, about one out of three EOR students drops out in the first year. Despite information sessions and mentoring activities with clear communication on the level of difficulty of the programme, the first year continues to have a very selective character. Roughly two-thirds of the students receive a positive BSA. Around a quarter of the students with a positive BSA finish the programme within the nominal duration and 70% does so in four years.

According to the programme team, these figures are in line with other EOR programmes in the Netherlands. In information meetings for prospective students at TiSEM extra attention goes to stressing the level of difficulty of the programme, that affinity with mathematics is required and that students should have the willingness to spend serious time to the courses in the programme. During the first year, PASS-activities, in particular mentor meetings with a staff member, are organized to monitor study progress. The programme team envisages the set-up of a workshop Mathematical Writing and Proving to guide students to an environment where more mathematical rigour is the standard. Furthermore, students with a positive BSA but without all credits in year one find it hard to catch up and finish within the nominal period of three years. In order to reduce further study delay, the bachelor thesis is organised twice per year, which in turn allows students to finish their programme at the end of the fall semester and enter an MSc programme in spring.

The self-evaluation contains an overview of the EOR courses and their respective coordinators and lecturers. The panel notices that the academic staff consists predominantly of professors who are active in research in the various applied areas of EOR. Some faculty have part-time appointments and combine this with work in the practice of EOR. Part of the academic staff is international. Students indicated in their contribution that the quality of the courses is fine and that professors are open to suggestions for improvement. Most courses feature tutorial lectures for relatively small groups; in these tutorials students catch up with the courses and there is room for personal attention. While lecturers organise the tutorials in different ways, students tend to be satisfied with the set-up of these tutorials.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the EOR courses connect neatly to the overall programme objectives. The panel considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable EOR students to reach the intended learning outcomes. In this regard it also endorses the positive impressions of the students on the quality of the courses and the structure of the curriculum. Furthermore, the PRT appreciates the opportunity for EOR students to study abroad as part of their regular curriculum and welcomes the efforts of the programme and the school to sketch a correct picture of the programme and its workload to potential students.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this particular bachelor programme EOR.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment formats are varied, that individual EOR courses tend to use different forms of assessment and that these tests benefit the course learning goals and contribute to the overall programme learning outcomes. The panel notices in this regard that, notwithstanding the higher workload it entails, EOR teaching staff prefer assessment formats featuring open-ended questions because this allows to check whether students meet the learning outcomes at the required level.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that assessors use an appropriate evaluation form to report on their assessment of the EOR bachelor theses: according to the thesis expert, the criteria are relevant and described in detail; the evaluation form invites assessors to score each criterion and motivate their appreciation in writing; both supervisor and co-reader complete a separate form; the calculation of the final grade is explained on the form.

Overlooking the entire sample, the expert reported that in nine out of fifteen cases, the evaluation form was completed in a satisfactory way. The assessors demonstrated according to the expert that they have made a serious effort to read the theses accurately and evaluate these consciously. In these cases the expert agreed to the assessments, both in terms of (quantitative) scoring and (qualitative) feedback. In the six other cases, the expert agreed to the scores on the respective criteria but reported that the written feedback was absent, extremely brief or uninformative. Hence the suggestion to have both assessors give at least one line of explanation in a clear and objective language on each criterion they mark, also on those theses (criteria) that get (very) high scores.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this EOR programme.

In addition the PRT endorses the findings of the thesis committee that the quality of thesis assessment is adequate. Compared to the previous accreditation visit, the evaluation forms are completed in a more insightful way. However, compared to the progress made in this respect

across all TiSEM programmes, the EOR programme team may want to encourage all assessors to provide insightful feedback in the thesis evaluation form.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The PRT's general findings on thesis quality and graduate performance at TiSEM are valid for this bachelor programme.

The final project consists of a bachelor thesis that amounts to 12 ECTS. The thesis aims to prepare students to conduct independent supervised research on a topic in one of the applied areas of EOR: business analytics, operations research, quantitative finance, actuarial science, econometrics, and mathematical economics.

As part of the external assessment of this programme, a team of experts on the thesis committee reviewed a sample of 15 EOR theses. The thesis selection was based on a list featuring 79 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (6% - 54% - 39%) in the sample, the expert reviewed 1 low quality, 8 average quality and 6 high quality theses that had been assessed by a variety of supervisors and second readers.

According to the thesis expert, each of the fifteen theses was clearly of sufficient quality to pass; hence, none of the reports was submitted to the thesis committee for a second opinion. In terms of grading, the expert agreed to all final scores given by the respective assessors. As a result, the ranking of the theses is adequate: theses with a higher score are indeed of better quality than those receiving a lower grade, while theses with an identical grade are of comparable quality.

Overlooking the entire sample, the expert reported that the level of the theses was high in all aspects: the timeliness of the topics, the choice and the use of data, the econometrics and operations research methodologies used, the style of writing, etc. The theses showed that the underlying programme is of high quality. Moreover, they demonstrated the broad nature of (the domain covered by) the programme, which in turn allowed students to work at a high level on a wide range of relevant topics using state-of-the-art methods in econometrics and operations research.

The PRT was informed that EOR graduates have unconditional access to three follow-up master programmes at TiSEM: Business Analytics and Operations Research (BAOR); Econometrics and Mathematical Economics (EME); and Quantitative Finance and Actuarial Science (QFAS). About 90% of the graduates enrol on one or more of these programmes; other students pursue a different master programme at Tilburg or another university. Although there are job

opportunities, the number of EOR students entering the labour market directly after completing their bachelor's degree is very limited.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that EOR graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the bachelor thesis is very good. Furthermore, the PRT welcomes the different opportunities for EOR graduates to proceed directly with a relevant and specialist follow-up master study and considers that they are successful in doing so.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the PRT considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this EOR programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this bachelor programme Econometrics and Operations Research at the Tilburg School of Economics and Management of Tilburg University.**

3. BSc Economics

The bachelor Economics (ECO) is a three-year full-time 180 ECTS programme taught in English. It aims to provide knowledge and skills on how people, companies and governments make certain decisions (microeconomics) and how these decisions affect the economy as a whole (macroeconomics). Students learn how to use economic models to analyse and interpret changes in the local and global economic landscape.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention in these programmes to the developments in the respective professional domains are all valid for this particular bachelor programme ECO.

The panel gathers from the materials that this is a hardcore economics programme: focusing exclusively on economics, ECO students acquire a strong disciplinary basis which is a good starting point for an academic career or a position where analytical economic thinking is required. In terms of programme portfolio, the PRT discussed the common and differentiating features of this ECO programme and three other bachelor programmes offered by TiSEM: Business Economics (BE), Tax Economics (TE) and Economics and Business Economics (EBE). The panel was informed that there is a clear difference both in substance and in language between this English language Economics programme on the one hand and the three other programmes who share a common first year. Moreover, a comparison with benchmark programmes in the Netherlands and beyond reveals that all programmes provide foundational courses in macroeconomics, microeconomics and quantitative methods. A distinctive feature of ECO at TiSEM is that students are exposed to several specialised topics and at the same time learn about cutting edge research in several subfields of economics. In recent years, moreover, the programme has also been paying increasing attention to students developing data analysis skills, which both employers and the scientific discipline hold in high esteem.

The PRT has studied the intended learning outcomes. Compared to the previous accreditation, the learning outcomes have been reformulated and aligned with the structure of the Dutch Qualification Framework (NLQF) at bachelor level 6. In their new formulation, the learning outcomes continue to reflect the internationally accepted Dublin Descriptors and are concrete in terms of content (economics), level (bachelor) and orientation (academic). The PRT appreciates that the newly added outcomes on responsibility and independence explicitly reflect the Character pillar of the Tilburg Educational Profile.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the current set of learning outcomes reflects the contents, level and orientation of the EOR programme. It addresses all competencies and reflects the key values of the

university and the school. Moreover, the panel appreciates the way in which this programme takes up a position of its own within the portfolio of bachelor programmes at TiSEM and across similar programmes in the Netherlands and beyond.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The panel's general findings on the teaching-learning environment at TiSEM are also valid for the programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the three-year programme is well thought through. The curriculum consists of a two-year foundation phase with compulsory courses and a specialisation phase with elective courses. Students first follow four courses in microeconomics and four courses in macroeconomics, which mainly cover theoretical insights. In the second year, three courses on Development Economics, Public Sector Economics and International Trade take a more empirical angle on specialised topics. In addition to the minor period, students choose two out of five restricted elective courses in the third year on Competition Policy and Regulation, Environmental Economics, Experimental and Behavioural Economics, Labour Economics, and Economics of Banking and Finance.

Compared to the description of other TiSEM programmes under review, the panel notices that this ECO programme emphasises the strong connection between education and research: in most courses the results of scientific research are part of the course contents. Similarly, the international focus of the programme stands out: it is taught in English, covers international topics in the courses, features a multicultural classroom and is taught by a mixture of Dutch and international faculty. Moreover, ECO students are encouraged to spend a study period abroad as part of their curriculum, which in turn contributes to the character pillar of the Tilburg Educational Profile.

In line with its overall appreciation on the choices TiSEM makes regarding the language of instruction in its degree programmes, the PRT strongly supports the decision of the school to offer this bachelor programme in English as it has led to attracting a geographically and culturally diverse student body, which is taught by a mixture of Dutch and international staff.

Students indicated in their contribution that they are satisfied with the course contents. Although they would have liked a less rigid foundational phase, they understand the rationale behind this approach. The lectures, tutorials and assignments allow for extensive interaction with peers, teaching assistants and professors. Moreover, the composition of the cohorts featuring many different nationalities allows for vivid exchanges of insights, experiences and perspectives in class, notably when topics such as globalisation, poverty and corruption are discussed. While

not formulated so much as a point of critique, the students did indicate to the panel that they were surprised at the start about the sheer workload that comes with studying economics at TiSEM: although spending 40 hours per week on studying is not exaggerated, it does put some strain on students learning how to digest challenging materials at a time when they are also starting to organise their own lives.

Over the past five years, the yearly intake fluctuated between 52 and 101 students. The total number of ECO students increased from 219 (in 2018-2019) tot 323 (in 2021-2022). The majority of these students were international with an average cohort counting 30 nationalities. Given the steady but not exponential increase in student numbers, the viability of the programme is no longer at stake, on the contrary: while the current student numbers still allow for high quality education in plenary lectures and frequent interaction in tutorial groups, any further increase will require additional teaching staff. Currently, the Economics Department at TiSEM is actively seeking to expand its teaching capacity by hiring new teachers and by contracting alumni who are interested in smaller assignments on specific courses.

Roughly 70% of the students who start ECO move on to the second year. According to the team this is a decent result for a programme that is quite demanding and has no specific admission requirements. Once they pass the first year and obtain a positive Binding Study Advise, hardly any student drops out. About one third of the students with a positive BSA finish the programme within the nominal duration and about half do so in four years.

The self-evaluation report contains an overview of the ECO courses and their respective coordinators and lecturers. The panel notices that the academic staff consists predominantly of professors who are active in research. Just over half of the faculty involved in the ECO programme is non-Dutch. Students indicated that they appreciate the opportunities for interaction during lectures and tutorials. While some students are more positive than others with regard to the quality and intensity of thesis supervision, they are generally satisfied with the thesis coordinator who assigns projects and supervisors with great attentiveness to the interests of individual students.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that ECO courses connect neatly to the overall programme objectives. The panel considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable ECO students to reach the intended learning outcomes.

Furthermore, the PRT thinks highly of the way in which the key (distinguishing) features of the programme – the international dimension and its attention to research in education – are taken up throughout the entire curriculum. Moreover, the panel considers that the programme is very effective in attracting diverse cohorts of ECO students who are taught by an almost equally diverse team of lecturers.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this particular bachelor programme ECO.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment formats are varied, that individual ECO courses tend to use different forms of assessment and that these tests befit the course learning goals and contribute to the overall programme learning outcomes.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that assessors use an appropriate evaluation form to report on their assessment of the ECO bachelor theses: according to the thesis expert, the evaluation criteria are relevant and described in detail; the form invites assessors to score each criterion and motivate their appreciation in writing; both supervisor and co-reader complete a separate form; the calculation of the final grade is explained on the form.

Overlooking the entire sample, the expert reported that all fifteen evaluation forms were completed in a satisfactory way. The assessments were extensive and clear; when needed, the feedback was critical but justified. Hence, the thesis committee had no particular concerns, on the contrary: the quality of the thesis sample was above the bar and its assessment was done correctly.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this ECO programme.

In addition, the panel endorses the findings of the thesis committee that the quality of thesis assessment is very good. Compared to the previous accreditation visit, the evaluation forms are completed in a much more insightful way.

Conclusion

The PRT judges that **this programme meets standard 3, student assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel's general findings on thesis quality and graduate performance at TiSEM are valid for this bachelor programme.

The final project consists of a bachelor thesis that amounts to 12 ECTS. It can take the form of a theoretical or empirical study or an in-depth literature review and should have between 6000 and 8000 words.

As part of the external assessment of this programme, a team of experts on the thesis committee reviewed a sample of 15 ECO theses. The thesis selection was based on a list featuring 40 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (18% - 58% - 25%) in the sample, the expert reviewed 3 low quality, 8 average quality and 4 high quality theses that had been assessed by a variety of supervisors and second readers.

According to the thesis expert, each of the fifteen theses was clearly of sufficient quality to pass; hence, none of the reports was submitted to the thesis committee for a second opinion. In terms of grading, the expert agreed to fourteen out of fifteen final scores given by the respective assessors. In one case the thesis deserved a lower score (6 instead of 7) because it constituted not more than a mediocre literature review, according to the expert. The ranking of the theses is adequate: theses with a higher score are indeed of better quality than those receiving a lower grade, while theses with an identical grade are of comparable quality.

Overlooking the entire sample, the expert reported that the theses were interesting and covered a variety of topics. Most theses were empirical studies using up-to-date methods such as panel fixed-effects or natural experiments. Students discussed in their bachelor thesis the limitations of the research extensively and clearly. If anything, the expert noted that hardly any thesis described or developed formal theory; it was almost as if economic theory was non-existent, or at least highly unpopular among students.

The PRT was informed that ECO graduates have direct access to a few master programmes at TiSEM: more than half move on to the MSc Economics, while others enrol for the MSc in Finance. These figures are (much) higher than in the previous reporting period when only 30% of the ECO graduates continued studying in Tilburg. Moreover, over the last few years more ECO students graduate cum laude: from 5% in 2015 to almost 30% in 2020. It therefore comes as no surprise according to the panel that an increasing number of ECO students show interest in pursuing an academic career, and that the thesis committee thought highly of the quality of the thesis sample.

Considerations

In line with its general considerations on the this standard across TiSEM programmes, the PRT establishes that ECO graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the bachelor thesis is very good, which in turn confirms the statements in the self-evaluation report that ECO students/graduates are increasingly interested in pursuing an academic career.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this ECO programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this bachelor programme Economics at the Tilburg School of Economics and Management of Tilburg University.**

4. BSc Economics and Business Economics

The bachelor *Economie en Bedrijfseconomie* (Economics and Business Economics, EBE) is a three-year full-time 180 ECTS programme taught in Dutch. It offers students a combination of a broad overview and knowledge of the various fields in economics and business economics with a modern skill set in business analytics.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention in these programmes to the developments in the respective professional domains are all valid for this particular bachelor programme EBE.

The panel gathers from the materials that EBE bachelor programmes in the Netherlands and abroad offer a broad foundation in economics and business economics with proper attention to academic skills and a balance between the concepts involved, the practical applicant needed, and the relevant institutional settings. In this way, EBE students acquire competences that prepare them for the job market or a follow-up master programme. The EBE programme at TiSEM stands out from its benchmark programmes by its additional attention to data analytics skills and its focus on empirical research. Hence, EBE graduates will have a competitive advantage on the labour market due to their ability to link a broad knowledge of economics and business economics to a modern skill set of applying data analytics to resolve dilemmas in a professional manner. Furthermore, EBE students specialise during their study in one of three tracks: Financial Management, Commercial Management, or Economics & Society.

The PRT has studied the current set of intended learning outcomes, which are the result of extensive discussions with staff, students, alumni, academics and employers. Compared to the previous accreditation, the learning outcomes have been adjusted and aligned with the structure of the Dutch Qualification Framework (NLQF) at bachelor level 6. In their new formulation, the learning outcomes continue to reflect the internationally accepted Dublin Descriptors and are concrete in terms of content (economics and business economics), level (bachelor) and orientation (academic). The current learning outcomes focus more on the communication and learning abilities of EBE students who are trained to communicate information, data and solutions to different audiences and acquire lifelong learning skills. Moreover, the PRT appreciates that former attitude-related competences are now sharpened in the learning outcomes on responsibility and independence which explicitly reflect the Character pillar of the Tilburg Educational Profile.

In terms of programme portfolio, the PRT discussed the common and differentiating features of this EBE programme and three other bachelor programmes offered by TiSEM: Business Economics (BE), Economics (ECO) and Tax Economics (TE). The panel was informed that there is a clear difference both in substance and in language between the English language

Economics programme on the one hand and the three other programmes who share a common first year. After the first year, however, the overlap in programme objectives and course contents is also limited between BE, EBE and TE. The respective programme teams have been/are using the programme revisions (learning outcomes, curriculum courses, assessment formats) to emphasise the specific character of the programmes. These differences and the respective programme objectives are emphasised in Open Days. Students tend to choose the most relevant programme based on their motivation but are allowed to switch programmes after the first year. The teaching staff indicated that while the specificity of the respective programmes, learning outcomes and courses are outlined on paper, there is room for communicating this more explicitly in class. According to the PRT, the discussion has clarified the position and demonstrated the unique character of the respective programmes.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the newly formulated learning outcomes reflect the content, level and orientation of the EBE programme. The revision exercise involving different stakeholders has clearly paid off because the learning outcomes address all competencies, cover the particular features and specialist tracks of the EBE programme at TiSEM and reflect the key values of the university and the school. Further to its discussion on the programme portfolio, the panel considers that there is a clear rationale for offering a dedicated bachelor programme in Economics and Business Economics at TiSEM.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The panel's general findings on the teaching-learning environment at TiSEM are also valid for the programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the three-year programme is well thought through. The curriculum consists of a wide range of courses in both economics and business economics combined with courses offering a deep understanding of economic analysis. In the first year, EBE students follow the same courses as their EB and TE colleagues. In the second year, they select one of three tracks, which are not only focused on a theme (knowledge) but also share similar EBE elements to ensure common ground across tracks in terms of skills and responsibility. The third year consists of a minor period and allows students to further specialise and/or broaden their knowledge regarding the other tracks. The PRT notices furthermore that the EBE programme is rooted in both classic and contemporary academic theory and research. In this way, it reflects the changes in the academic discipline and society at large. In terms of course contents, this results in EBE students applying knowledge

and data skills to contemporary topics such as energy efficiency, ageing, or migration and their effects on both firms and society.

Students indicated in their contribution that they appreciate the variety of courses, both compulsory and elective, in the EBE curriculum. The mandatory courses have a broad range of subjects to learn the basic concepts of economics and business economics. Moreover, the choices offered per track or across tracks give students the options to develop in a way that really suits their individual needs and interests. As a point for attention, students mentioned that this freedom of choice and the options on offer can be communicated better and earlier: more precise information on what each track and its courses entail would help students to reflect what they want to do before they actually have to decide on a track.

Over the past five years, the student intake fluctuated between 140 and 210 students with the total number of EBE students ranging from 467 (in 2018-2019) to 550 (in 2020-2021) and 500 (in 2021-2022). Given that it is a Dutch language programme, EB cohorts are homogeneous in terms of nationality with most students entering directly from secondary education where they mostly followed the Economics & Society track. Roughly two-thirds of the EBE students obtain a positive Binding Study Advise after the first year; among these students, the progress rate differs somewhat per cohort: on average 45% manage to finish the programme within the nominal duration and about 75% do so in four years.

The self-evaluation contains an overview of the EBE courses and their respective coordinators and lecturers. Given the sheer number of courses, a total of 112 teaching staff is involved in the EBE programme. The PRT notices that the academic staff consists predominantly of professors who are active in research in the various domains of EBE. Hence, the education they provide is research-driven and often based on current research work. Furthermore, the panel gathers from the student contribution that the quality of the teaching staff is variable and that this difference in (didactic) quality was particularly visible during the COVID-19 pandemic when all education took place online. According to the students, the quality of online education could – and should - have been monitored better. Hence, the panel understands that EBE students in their contribution were hesitant with regard to the plans of TiSEM to promote hybrid forms of education that would entail too much online activity.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the EBE courses connect neatly to the overall programme objectives. The panel considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable EBE students to reach the intended learning outcomes. In this regard, it thinks highly of the way in which the key (distinguishing) features of the programme – specialist tracks, data analytics, research-based education, contemporary topics, communication and learning skills - are taken up throughout the entire curriculum.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this particular bachelor programme.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment formats are varied, that individual EBE courses tend to use different forms of assessment and that these tests benefit the course learning goals and contribute to the overall programme learning outcomes. The panel notices in this regard that the growth in student numbers has induced teaching staff to reconsider some of the assessment formats. Hence, teaching staff is now using more computer exams and formative self-assessment to increase assessment efficiency. However, as students appreciate short personal feedback moments, the programme is looking for a balance between efficiency, personalisation and differentiation in assessment.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that assessors use an appropriate evaluation form to report on their assessment of EBE bachelor theses: according to the thesis expert, the evaluation criteria are relevant and described in detail; the evaluation form invites assessors to score each criterion and motivate their appreciation in writing; both supervisor and co-reader complete a separate form; the calculation of the final grade is explained on the form.

Overlooking the entire sample, the expert reported that all fifteen evaluation forms were completed in a satisfactory way: the criteria were clear and the assessments were very much in line with the final grade. Moreover, most supervisors and assessors motivated their scores with clear, useful and additional information.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this EBE programme.

In addition, the PRT endorses the findings of the thesis committee that the quality of thesis assessment is very good. Compared to the previous accreditation visit, the evaluation forms are completed in a much more insightful way.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel's general findings on thesis quality and graduate performance are valid for this programme.

The final project consists of a bachelor thesis that amounts to 12 ECTS. The thesis is centrally coordinated to streamline the process across the EBE tracks. Students can choose a thesis topic from a list provided by faculty or suggest a topic of their own.

As part of the external assessment of this programme, a team of experts on the thesis committee reviewed a sample of 15 EBE theses. The thesis selection was based on a list featuring 87 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (17% - 68% - 15%) in the sample, the expert reviewed 3 low quality, 10 average quality and 2 high quality theses that had been assessed by a variety of supervisors and second readers.

According to the thesis expert, each of the fifteen theses was clearly of sufficient quality to pass; hence none of the reports was submitted to the thesis committee for a second opinion. In terms of grading, the expert agreed to all final scores given by the respective assessors. As a result, the ranking of the theses was adequate: theses with a higher score were indeed of better quality than those receiving a lower grade, while theses with an identical grade were of comparable quality. The best thesis of the sample got a perfect score; the expert leaves it to the discretion of the programme and the assessors whether it really deserved a 10.

Overlooking the entire sample the expert was pleasantly surprised by the quality of the bachelor theses: on average they were well-written, the topics were well-researched and the level of conceptual/quantitative analysis was good and in some cases very good. Moreover, the expert noted that the theses covered a wide range of topics, in line with what one would expect from an EBE programme. In one case, the expert reported with enthusiasm on an example of good practice on how a case study can result in a good BSc thesis. As a point for attention in the future, the expert reported that sometimes the literature review and the theory parts were a bit short, which may be due to the eagerness among students to focus on the data and the quantitative analysis

The PRT was informed that EBE graduates have direct access to a very wide range of master programmes at TiSEM. This is ensured via the curriculum committee which includes several Academic Directors of master programmes and looks at the alignment between bachelor learning outcomes and master programme entry requirements. In fact, over the past five years 86% of the graduates continued their studies in Tilburg, while less than 5% did not proceed immediately to a follow-up study.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that EBE graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the bachelor theses is very high. Furthermore, the PRT welcomes the different opportunities for EBE graduates to proceed directly to a relevant and specialist follow-up master programme and considers that they are successful in doing so.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this EBE programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this bachelor programme Economics and Business Economics at the Tilburg School of Economics and Management of Tilburg University.**

5. BSc International Business Administration

The bachelor International Business Administration (IBA) is a three-year full-time 180 ECTS programme taught in English. It aims to offer a comprehensive international business education covering the most important pillars of the business discipline and their application to international environments.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention in these programmes to the developments in the respective professional domains are all valid for this particular bachelor programme IBA.

The panel gathers from the materials that many universities in the Netherlands and abroad offer bachelor programmes IBA. These programmes invariably address the different business pillars, pay attention to the international environment, teach how to understand the role of companies and critically reflect on business, include training on quantitative methods and empirical research, and provide students with communication and project management skills. The IBA programme in Tilburg stands out among its benchmarks through its explicit attention to scientific thinking and scientific communication, its requirement that all students should have sufficient English language skills at the time of enrolment, its focus on work in intercultural settings, and its inclusion of uncertainty and responsibility in the learning outcomes. Students indicated in their contribution that compared to other bachelor programmes at TiSEM, the international aspect of this IBA programme is particularly prominent.

The PRT has studied the current set of intended learning outcomes, which are the result of extensive discussions with the professional field. In line with the university's tradition in research-based learning, the learning outcomes (continue to) emphasise research and scientific knowledge and skills. Compared to the previous accreditation, the learning outcomes have been further developed and aligned with the structure of the Dutch Qualification Framework (NLQF) at bachelor level 6. In their new formulation, the learning outcomes continue to reflect the internationally accepted Dublin Descriptors and remain concrete in terms of content (international business administration), level (bachelor) and orientation (academic).

Furthermore, the panel notices that the current set of learning outcomes focuses not only on intercultural knowledge but also on intercultural skills to cope with differences in the workplace. Moreover, students should not only solve business issues but also learn how to ask relevant business and research questions to solve these issues. Finally, IBA students are expected – more explicitly than before – to deal by the end of the programme with risk and uncertainty and to take ownership of their learning process and personal development.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the current set of learning outcomes reflects the content, level and orientation of the IBA programme. The revision exercise involving representatives of the professional field has clearly paid off because the learning outcomes address all competencies, cover the particular features of the IBA programme at TiSEM and reflect the key values of the university and the school.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The panel's general findings on the teaching-learning environment at TiSEM are also valid for the programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the three-year programme is well thought through. The curriculum consists of five clusters that are addressed throughout a big part of the programme. The first two years consists almost entirely of compulsory courses that relate to four clusters: core business, peripheral business, skills, and quantitative techniques and research methods. In the third year students can tailor the programme to their interest in the personal development cluster featuring a mobility window (study period abroad, internship, minor courses) and the specialised thesis topic.

Students indicated in their contribution that the curriculum set-up is strong and logical: the combination of courses and the order in which they are distributed facilitate the learning experience of students. Moreover, the connection between theory and practice is not only mentioned on paper but is effectively implemented in all three years; students either learn through case studies in highly appreciated tutorials or have direct contact with organisations where they can use their knowledge in a real business environment. In this regard, students found that irrespective of the choices they made in this broad IBA programme, they will always find the career opportunities that suit them best because they were able to orient themselves on the labour market already at a very early stage in their study. Furthermore, students welcomed the recent introduction of two compulsory elective courses in the second year – Operations Management and Introduction to Business Taxation – and praised in particular the relevance of the newly created course on Business Taxation.

As a point for attention, the students mentioned that there is some overlap between courses. According to the programme team, overlapping material is checked in sounding board meetings and by inspecting course manuals; course coordinators are instructed to discuss the overlap and find solutions. New course coordinators are instructed to inspect course manuals of relevant courses that are preceding their course and/or to have meetings with the course coordinators of

these courses. However, in many cases the material is not exactly the same but lecturers use the repetition on purpose to ensure everyone has the necessary basic knowledge or discuss the material from a slightly different angle. While some repetition will be maintained, there is certainly room for communicating the reasons for this particular kind of overlap better. In the future, having blended learning materials with knowledge clips will allow to reduce the repetition of materials as those students who do not need it can skip it.

Furthermore, the PRT notices that internationalisation is a core element of the curriculum – and even more so than at the time of the previous accreditation. In this regard, it acknowledges the efforts of the programme team to ensure that all courses address theories related to international business and that all students are taught to apply models to international cases. Moreover, the international atmosphere in the classroom is enhanced, and IBA students are trained to work in multi-national and multi-cultural groups. Students from their side mentioned that the international dimension in course content, in class settings, and in acquiring professional and intercultural skills is indeed what makes this IBA programme stand out. They also emphasise that this international dimension is further enhanced by the need to communicate permanently in English.

In line with its overall appreciation of the choices TiSEM makes regarding the language of instruction in its degree programmes, the PRT strongly supports the decision of the school to offer this bachelor programme in English as it has led to attracting a geographically and culturally diverse student body, which is taught by a mixture of Dutch and international staff. Moreover, the use of English as communication vehicle contributes to achieving the programme learning outcomes as IBA graduates should be able to function in culturally and geographically diverse groups and communicate in multinational business positions worldwide.

Over the past five years the number of IBA students has increased: after the abolishment of the *numerus fixus* in 2019-2020 it became TiSEM's biggest bachelor programme. The intake in September 2020 consisted of 321 Dutch and 184 international students; the total number of IBA students increased from 901 (in 2018-2019) to 1483 (in 2021-2022). Within the cohorts, the share of international students is increasing and nearing the target rate of 40%. Moreover, cohorts become more diverse: while about 80% of the international students are European, the number of nationalities within a cohort has climbed above 50 (compared to 29 five years ago).

Over the years, the drop-out rate has been relatively stable round 15% with around 85% of the students obtaining a positive Binding Study Advice; among the students who enter the second year, about 60% finishes the programme within the nominal duration while 88% does so in four years.

The self-evaluation report contains an overview of the IBA courses and their respective coordinators and lecturers. The panel notices that in the 28 mandatory courses 86 staff are involved. Compared to the previous accreditation, the number and share of international faculty has grown: 68% of the course coordinators and 66% of the lecturers are non-Dutch, representing 15 different nationalities. The academic staff consists predominantly of professors who are

active in research and are linked to six departments within TiSEM and three other Schools at the university. Moreover, a growing share of the IBA staff has obtained a university teaching qualification. Following a recommendation of the previous accreditation panel, the current PRT notices that the Academic Director has intensified the contacts with both lecturers and their respective heads of department. In this way the programme attracts the most relevant lecturers and ensures that those faculty who provide high quality education continue to teach in the IBA programme.

Students indicated that teaching staff is approachable and that the academic director and education coordinator are very committed to the students as a group and individually. In this way they create an environment in which students feel safe to express criticism and make sure these elements, when relevant, are taken up. Moreover, students recognise that the growing number of international staff have a positive influence on the international atmosphere in class and on the multicultural skills of the students.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the IBA courses connect neatly to the overall programme objectives. The panel considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable IBA students to reach the intended learning outcomes.

Furthermore, the PRT considers that the international dimension of the programme has different components (content, didactics, cohorts, staff, professional outlook) which - individually and together - constitute a considerable added value for the IBA students during the programme and for their development as professionals on the labour market. In this regard, the panel considers that the programme's choice for English as language of instruction is highly relevant.

Finally, the panel endorses the positive statements from the students on the curriculum set-up, on the benefits of intercultural and international education and on the commitment of staff and programme management.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this particular bachelor programme IBA.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment formats are varied, that individual IBA courses tend to use different forms

of assessment and that these tests benefit the course learning goals and contribute to the overall programme learning outcomes. The panel notices in this regard that the growing number of IBA students have led the course coordinators to design assessments in such a way that they are not only valid and reliable but also efficient. Moreover, first-year IBA courses all have a midterm exam to activate freshmen, motivate them to study early in the semester and provide feedback on their learning process. However, as students also appreciate personal feedback moments (consults), there are currently six courses the programme featuring between two and five feedback moments. The PRT was informed that the programme is envisaging to professionalise these consults, provide young lecturers with better instructions, and to train staff in this teaching and assessment method, possibly as part of the UTQ process.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that each specialisation is using a different evaluation form to report on the assessment of IBA theses. However, the thesis experts also found that each form is appropriate: the criteria are varied, relevant and described in detail. Moreover, the form invites assessors to score each criterion and motivate their appreciation in writing. Both supervisor and co-reader complete a separate form. In most cases, the calculation of the final grade is explained on the form.

One expert reported that the structural elements of the theses are to some extent reflected in the evaluation form. This link between the structure of the thesis and the evaluation form has great advantages for students and evaluators: it helps students to tackle complex problems and gives them insight into the evaluation process (transparency), while the structural approach also facilitates the evaluation process of the assessors and guarantees an objective assessment (high interrater reliability).

Overlooking the entire sample, the experts reported that in fourteen out of fifteen cases, the evaluation form was completed in a satisfactory way. In these cases, the experts agreed with the assessments, both in terms of (quantitative) scoring and (qualitative) feedback. In one case the comments were too general, not entirely consistent and not sufficiently insightful. Moreover, in several cases both assessors completed the evaluation form separately, but provided identical comments and scores. All in all, the experts found that comments tended to be detailed, consistent with the scores and indicative of both strengths and weaknesses of the respective theses.

The programme team mentioned that in principle assessors evaluate the thesis separately before they discuss with each other. Given the number of supervisors (and second readers), it is difficult to get and keep everyone on the same page. Hence, a dedicated thesis coordinator was appointed who is currently looking at harmonising the supervision and grading processes. This, in turn, should mitigate the concerns/criticism of students that the quality of supervision differs per staff member and that some specialisations are more demanding than others in terms of thesis content and grading.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this IBA programme.

In addition, the PRT endorses the findings of the thesis committee that the quality of thesis assessment is good. Compared to the previous accreditation visit, the evaluation forms are completed in a much more insightful way. In this regard, the panel acknowledges the efforts of the programme team in the past and welcomes their plans for more harmonisation in the supervision and grading process across specialisations and among the numerous assessors.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel's general findings on thesis quality and graduate performance are valid for this bachelor programme.

The final project consists of a bachelor thesis which amounts to 12 ECTS, addresses one of four tracks – Accounting, Finance, Management, Marketing - and contains an international component. As part of the external assessment of this programme, a team of experts on the thesis committee reviewed a sample of 15 IBA theses. The thesis selection was based on a list featuring 168 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (25% - 65% - 10%) in the sample, the experts reviewed 4 low quality, 9 average quality and 2 high quality theses that had been assessed by a variety of supervisors and second readers. The sample included theses from the four programme variants Accounting, Finance, Management and Marketing.

According to the thesis experts, fourteen out of fifteen theses were clearly of sufficient quality to pass. One thesis was submitted to the committee for a second opinion; the fellow reviewer found that the thesis, which had been approved by the assessors with a low score in a re-sit, to be a meagre pass. Hence, the thesis committee considers the entire sample of theses to be of sufficient quality.

In terms of grading, the experts agreed to twelve out of fifteen final scores given by the respective assessors. In addition to the above-mentioned re-sit case, one score (8.5) was deemed high for a relatively straightforward literature review that lacked a solid critical synthesis; in another case the final score of 8 could only have been explained if the student came up him/herself with the research question and the research design, as both the argumentation and the writing style did certainly not warrant such score.

Overlooking the entire sample, the experts reported that the theses were well structured, featured specific research questions, developed hypotheses, paid attention to the limitations of the work, contained extensive reference lists and discussed the literature in an integrated way.

In addition to these positive remarks that were shared by all experts reviewing IBA theses, the experts noticed that the (few) theses focusing on empirical research were not necessarily of better quality than those developing hypotheses based on a literature review. Moreover, individual thesis experts mentioned that they were not always impressed with the writing style, the academic language used and the English language quality of the report; another expert thought that the choice of the research method could be motivated better and the chosen method itself explained in more detail; still another expert found that students could indicate better what they have done as part of the thesis: research design and data collection were sometimes presented as if the described study still needed to run while results were not always properly reported. Endorsing the findings of the thesis committee, the panel advises the programme team to discuss internally the results of the thesis review and see how the points for improvement can be integrated in the thesis trajectory.

The PRT was informed that IBA graduates have direct access to ten master programmes at TiSEM and that around 70% of the students continue their studies in Tilburg. While five years ago the MSc in Strategic Management was by far the most popular follow-up study, IBA students now tend to spread their interests among different master programmes at TiSEM, such as Finance and Supply Chain Management. In addition to IBA graduates moving on to other studies outside Tilburg, there is a growing number of students who do a gap with one or more internships or enter the labour market right away. IBA students who opt for the latter can rely on the career services team who offers personal coaching up to one year after graduation.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that IBA graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the bachelor theses is adequate. The PRT welcomes the different opportunities for IBA graduates to proceed directly to a relevant and specialist follow-up master programme, as well as the specific provisions for graduates entering directly on the labour. In both cases, the panel considers that IBA graduates are successful in their endeavours.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on

its general findings and considerations across all TiSEM programmes, as well as on the way this IBA programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this bachelor programme International Business Administration at the Tilburg School of Economics and Management of Tilburg University.**

6. BSc Tax Economics

The bachelor *Fiscale Economie* (Tax Economics, TE) is a three-year full-time 180 ECTS programme taught in Dutch. It offers students a broad academic background in tax economics and prepares them to work in tax practice and become at the same time critical observers of the ongoing developments in the field.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention in these programmes to the developments in the respective professional domains are all valid for this particular bachelor programme TE.

The panel gathers from the materials that the programme is both a system-oriented and principle-based study of the (Dutch) taxing system: students are offered a methodical way to both study the taxing system as it currently stands and reflect critically on what the taxing system should be like. In this way, students do not only acquire the relevant knowledge to work as professionals on the labour market, but they also develop the systematic tools to criticize this taxing system and to become critical citizens of society.

Dedicated (bachelor) programmes in TE only exist in the Netherlands and are offered at several universities. All these programmes include a mixture of three elements: business and general economics courses, general legal courses, and specific tax courses. The difference between the programmes lays in the weighting of these elements. The TE programme at TiSEM emphasises the legal training of students: according to the programme team studying the legal foundations is particularly relevant given the systematic approach of the programme to studying the taxing system.

The PRT has studied the intended learning outcomes, which have not changed compared to the previous accreditation visit. The panel notices that the learning outcomes are broken down in knowledge, skills and attitude, that they reflect the internationally accepted Dublin Descriptors and that they are sufficiently concrete in terms of content (tax economics), level (bachelor) and orientation (academic). The programme sounding boards and the Dutch Association of Tax Advisors consider that the intended learning outcomes are geared to the expectations and requirements of the professional field. The programme team intends to adjust the learning outcomes to the NLQF framework in the near future and to bring their formulation in line with the strategy and values of the university and the school.

Compared to descriptions of other bachelor programmes, the panel notices that this TE programme is particularly well connected to the professional field. It recently set up a new practice sounding board with representatives of tax consultancy firms, tax authorities, tax courts, and tax departments of larger Dutch companies. The group meets twice per year and

discusses among others the labour market opportunities and ways to improve contacts between students and future employers. According to the sounding board, there still is an enormous need for tax economists, which means that students should not have problems in finding jobs and traineeships already during their bachelor/master studies.

In terms of programme portfolio, the PRT discussed the common and differentiating features of this TE programme and three other bachelor programmes offered by TiSEM: Economics, Business Economics (BE) and Economics and Business Economics (EBE). The panel was informed that there is a clear difference both in substance and in language between the English language Economics programme on the one hand and the three other programmes who share a common first year. After the first year, however, the overlap in programme objectives and course contents is also limited between BE, EBE and TE. The respective programme teams have been/are using the programme revisions (learning outcomes, curriculum courses, assessment formats) to emphasise the specific character of the programmes. These differences and the respective programme objectives are emphasised in Open Days. Students tend to choose the most relevant programme based on their motivation but are allowed to switch programmes after the first year. The teaching staff indicated that while the specificity of the respective programmes, learning outcomes and courses are outlined on paper, there is room for communicating this more explicitly in class. According to the PRT, the discussion has clarified the position and demonstrated the unique character of the respective programmes.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the set of learning outcomes reflects the content, level and orientation of the TE programme. While the intended learning outcomes are certainly appropriate, the panel welcomes the intention of the programme team to sharpen their formulation in the near future.

Furthermore, the PRT considers that there is a clear rationale for offering a dedicated bachelor programme in Tax Economics at TiSEM. It encourages the programme management and teaching staff to continue their communication efforts towards (potential) students.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The panel's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the three-year programme is set-up in a particular way: TE students share the first year with BE and EBE students. There is one core tax economics course in year one and all students can attend so-

called Tax Inspiration Sessions in which tax practitioners present a relevant and hot topic. Moreover, regular course tutorials are organised in such a way that TE students have their own small-scale group sessions. As of year two, the core tax courses are taught by faculty from both Tax Law and Tax Economics departments for an audience that consists of tax economics and tax law students. The programme focuses strongly on the study of the Dutch taxing system, hence students learn mainly about the Dutch economic, legal and institutional framework of this taxing system. Nonetheless the national context can only be understood if students are also introduced to the international developments in taxation.

The panel was informed that very recently a number of changes were made to the curriculum of the third year in order for TE students to study abroad (without study delay) and/or to follow a more practice oriented course (Moot Court or Foundation of Fiscal Aid). Moreover, the business ethics course was revised to also reflect ethical tax topics. While students indicated that they are satisfied with the contents and the structure of the curriculum, they had one major concern: during the study programme there is little preparation for the bachelor thesis, certainly in comparison to other bachelor programmes. Hence, TE students feel as if they are thrown in the deep end as there is little or no attention paid to doing research and writing in an academic way prior to the bachelor thesis. The programme team acknowledges this point and is reportedly looking for ways to integrate this in existing courses.

Over the past five years the average intake was about 75 students per year. The total number of TE students slightly decreased from 245 (in 2018-2019) to 210 (in 2021-2022). The panel gathers from the discussions that while TE has now become the smallest bachelor programme at TiSEM, there is no concern about its long-term viability. Roughly 30% of the first-year students drop-out while on average 75% of the students obtain a positive Binding Study Advise. About half of the students entering the second year manage to finish the programme within the nominal duration while 80% does so in four years.

The self-evaluation contains an overview of the TE courses and their respective coordinators and lectures. Staff belongs to the Tax Departments of TiSEM and the Tilburg Law School and work together for more than 50 years in the Fiscal Institute Tilburg. The panel notices that the academic staff is active in research and often holds an additional position in the professional field of taxation. Their specific expertise matches with their role in the curriculum and most faculty meets the requirements for lecturing in a scientific programme. Students indicated in their contribution that they find the quality of the lecturers very high. Even during the COVID-19 pandemic, lecturers managed to deliver quality education and handled the limitations of online courses well. Students also appreciate that lecturers often bring their own practical examples which makes the theoretical framework more tangible for students.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the TE courses connect neatly to the overall programme objectives. The panel considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable TE students to reach the intended learning outcomes.

The PRT welcomes the attention of the programme team to monitor flaws and opportunities in the curriculum and their willingness to implement new courses/approaches/contents where possible. The panel also endorses the particularly outspoken praise by TE students for their lecturers.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this particular bachelor programme TE.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment formats are varied, that individual TE courses tend to use different forms of assessment and that these tests befit the course learning goals and contribute to the overall programme learning outcomes. The panel notices in this regard that further to critical indications from students, the programme intends to pay more attention to (the assessment of) research skills prior to the bachelor thesis.

With regard to thesis assessment, the findings in the general section also apply to this programme. The review performed by the thesis committee shows that assessors use an appropriate evaluation form to report on their assessment of TE bachelor theses: according to the thesis expert, the criteria are relevant and their respective weighting is stated clearly; assessors provide their own scores and there is room for feedback; the final score is calculated automatically on the form for each assessor individually and as a joint final score.

Overlooking the entire sample, the expert reported that eleven out of fifteen evaluation forms were completed in a satisfactory way. In these cases, the assessments were well motivated and informative; the feedback provided did not only explain the score but often also suggested how to improve the particular skill that was assessed in that criterion. In the four other cases, one or sometimes even both assessors provided hardly any motivation of the score as the feedback was either absent, very brief or uninformative. The panel endorses the findings of the thesis committee, as well as its suggestion that the programme team should encourage / check that all – not just most - thesis assessors add insightful feedback on the evaluation form.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this TE programme. In addition, the PRT endorses the findings of the thesis committee that the quality of thesis assessment is

good. Compared to the previous accreditation visit, the evaluation forms are completed in a much more insightful way.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel's general findings on the thesis quality and on the performance of graduates are valid for this programme.

The final project consists of a bachelor thesis that amounts to 12 ECTS. As part of the external assessment of this programme, an expert on the thesis committee reviewed a sample of 15 TE theses. The thesis selection was based on a list featuring 50 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (20% - 70% - 10%) in the sample, the expert reviewed 3 low quality, 10 average quality and 2 high quality theses that had been assessed by a variety of supervisors and second readers.

According to the thesis expert, each of the fifteen theses was clearly of sufficient quality to pass; hence, none of the reports was submitted to the thesis committee for a second opinion. In terms of grading, the expert agreed to thirteen out of fifteen final scores given by the respective assessors. In one case the expert thought the thesis deserved a higher grade (8 instead of 7) because it was well written, the problem definition was clear and the thesis contents were of more than average quality. In another case, the grade seemed too high: the thesis contents were sometimes difficult to understand and the writing skills were lacking.

Overlooking the entire sample, the expert reported that almost all theses had a logical structure that was in line with how classical tax economic research is done. Students therefore acquired sufficient knowledge of the way tax scholars do research. Moreover, students were knowledgeable of the topics they discussed in their theses and usually were capable to distinguish substantial from minor issues. Theses tended to be well written.

The expert appreciated that topics which were more difficult from a tax perspective and required a thorough knowledge of tax law were not avoided. However, certain theses with a particularly difficult topic (e.g. on corporate tax issues) lacked depth because the introduction into the topic already required a lot of explaining. In this regard, the expert found that the programme could check beforehand whether a certain topic/research question is suitable for a bachelor thesis.

Finally, the expert noted that similar topics were discussed in different theses, in this sample e.g. on value added tax issues. The programme may want to pay attention to this phenomenon as it could lead to rewriting work that was done in another (similar) thesis.

The PRT was informed that upon graduation, TE students have relevant competences to find a job on the labour market. However, if they envisage a job as (accredited) tax advisor, then they are practically obliged by potential employers and the Dutch professional association for tax advisors to pursue a master degree in TE. Hence, almost all TE graduates enrol for the master programme TE at Tilburg University, even if they also have unconditional access to the MSc in Accountancy at TiSEM or similar TE programmes at other universities.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that TE graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the bachelor theses is high. Graduates tend to proceed directly to the follow-up TE master programme at TiSEM. According to the PRT they are successful in doing so.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this TE programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this bachelor programme Tax Economics at the Tilburg School of Economics and Management of Tilburg University.**

Specific Findings and Considerations – Master programmes

7. MSc Accountancy

The master in Accountancy is a one-year full-time 60 ECTS programme taught in English. Accountancy comprises the collection, processing, usage and assurance of financial and non-financial information. The programme provides students with a critical understanding of specific theories, scientific knowledge and practical insights into the different aspects of accountancy.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention of these programmes to the developments in their respective professional domains are all valid for this particular master programme.

The panel gathers from the materials that several universities in the Netherlands and abroad offer similar master programmes. All these programme combine advanced academic knowledge and understanding of theories in accountancy and adjacent fields with a link to practice. They highlight the interdisciplinary nature of accounting and the relevance of accounting information for external and internal stakeholders, and increasingly pay attention to data management and data analytics tools. Compared to other programmes, Accountancy at TiSEM explicitly addresses issues of sustainability (e.g. carbon reporting or human capital reporting) and builds the professional character of students honouring ethics and considering their impact on others and society at large. Several benchmark programmes offer two major competency profiles – auditing and controlling. At Tilburg this distinction is currently made at the level post-master programmes which prepare for positions as Registered Accountant and Registered Controller. The panel was informed that the programme team is planning to develop new courses in order to implement two distinct tracks within the MSc programme.

The PRT has studied the intended learning outcomes, which have been critically reviewed by since the previous accreditation following consultation with internal and external stakeholders. The current set of learning outcomes pays explicit attention to environmental, societal and governance factors, to sustainable corporate behaviour and to the importance of and reliance on data analytics tools in practice. Furthermore, their formulation is not only aligned with the structure of the Dutch Qualification Framework (NLQF) at master level 7 but also continues to reflect the internationally accepted Dublin Descriptors. The panel establishes that the learning outcomes are concrete in terms of content (accountancy), level (master) and orientation (academic). Furthermore, they comply with the disciplinary framework set by the American Accounting Association (AAA) and recognised by accountancy programmes and academics worldwide. Moreover, the Dutch professional association of Accountants (NBA) supports the

programme in keeping its learning outcomes up to date. As this MSc degree is a stepping stone towards the post-master programme in Accountancy, which confers the title of Registered Accountant, both master and post-master programme teams coordinate the contents of their programmes to ensure that this MSc Accountancy programme covers the relevant requirements set by the Committee Final Qualifications Accountants (CEA).

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the current set of learning outcomes reflect the content, level and orientation of this MSc programme in Accountancy. The panel thinks highly of the result of the revision exercise, which has clearly paid off because the learning outcomes address all competencies, cover the particular features of the Accountancy programme at TiSEM, reflect the key values of the university and the school, and comply with both the global academic framework and the national professional requirements.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The PRT's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the programme is well thought-through. The curriculum consists of six core mandatory courses (36 ECTS), two elective courses (12 ECTS) and a final product in the form of the MSc File Accountancy (12 ECTS). The academic year is split in four units of two courses each, while the MSc File consists of four deliverables that are spread across the year. While most students enrol in September, there is also a second entry moment in February for students who completed a the pre-master programme in Fall or incurred a study delay in their bachelor programme.

Compared to the previous accreditation, the most important innovation is the switch from a master thesis to a MSc File Accountancy. The File is designed as an individual student portfolio of four end products and consists of a Business Application, Replication Study, a Research note and a Reflection Report. Students who wish to do so can combine the File with an internship at a company of their choice to extend their professional network, gain practical experience and demonstrate their abilities to potential employers. Further to the findings of the thesis committee (see standard 4), the PRT thinks that the introduction of an MSc File with end products has added value to the relevance of the programme.

Students indicated in their contribution that the programme provides courses in the different subfield related to accounting. They appreciate that these courses do not only cover the work

an auditor does but also pay attention why the different aspects of this work are important. Moreover, students think highly of the quality of the theory that is discussed and practiced during courses: by combining case studies, real-world examples and guest lectures with the theory developed in textbooks, the programme does a perfect job in educating students theoretically. According to the students, there is however some room for improvement with regard to the practice side of the programme. At this moment, this practice component is mainly covered through add-ons to the programme (six months of traineeship or a honours-type programme on Quantitative Techniques for Economics and Management) which may be feasible for some ambitious and resourceful students but not for the average master student in Accountancy

The PRT notices that the international orientation is an important element of the programme: offered in English, students understand the international orientation of the profession (featuring international accounting standards) and prepare for the international labour market in a multicultural environment (either abroad or with international companies in the Netherlands). Over the years the programme has attracted a considerable number of international students who are taught by an even more diverse teaching body. In line with its overall appreciation of the choices made regarding the language of instruction, the PRT supports the decision of the school to offer this master programme in English.

Over the past five years, the intake of Accountancy students has fluctuated between 164 (in 2019-2020) and 208 (in 2016-2017). Taking as an example the academic year 2020-2021, 127 students enrolled in September and another 53 did so in February; about 70% of that year's cohort had a bachelor's degree from TiSEM, 10% entered after a pre-master programme and 20% joined the programme from elsewhere. On average 10% of the students are non-Dutch. In terms of study progression, about half of the students graduate within the nominal duration of one year and 70% does so in one and a half year. The panel understands that several students decide to postpone their graduation because the demand for accountants is high and some already have a regular job during their studies.

The self-evaluation contains an overview of the Accountancy courses and their respective coordinators and lecturers. The core compulsory and elective courses are offered by staff linked to the Accountancy department. The teaching team currently consists of 13 staff, most of whom are non-Dutch. The panel notices that the academic staff consists predominantly of professors who are active in research and who invariably teach courses what align with their specific research expertise. Students appreciate the variety and the specific expertise of the lecturers involved in the programme. While there is a good fit between the topic and the professor, according to the students, some courses might benefit from younger staff with fresh and up-to-date experience of the professional field. Moreover, the English language quality of some lecturers could be improved.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the Accountancy courses connect neatly to the overall programme objectives.

According to the panel, this link has become even more apparent since the adjustments to the curriculum (notably but not exclusively through the MSc File Accountancy) and the revision of the learning outcomes. Hence, the panel considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable Accountancy students to reach the intended learning outcomes. The panel fully subscribes to the international orientation of the programme and therefore encourages the programme team to attract an even more diverse body of students. It endorses the input from the Accountancy students confirming the quality of the overall programme and pointing to specific elements for attention in the near future.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this master programme.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment forms are varied, that individual Accountancy courses tend to use different forms of assessment and that these tests befit the course learning goals and contribute to the overall programme learning outcomes. Given that the programme is organised in units of seven weeks, the assignment deadlines and exam dates follow each other in fairly quick succession. The programme team makes sure that these are coordinated at the start of each unit to give students a fair chance to successfully pass the assessments.

With regard to thesis assessments, the Accountancy programme stands out as its final project consists of a portfolio of four end products. The review performed by the thesis committee shows that every deliverable in the File is scored using a different evaluation form; each form contains relevant assessment criteria and an indication of their respective weighting. Assessors provide not only scores but also feedback; the final score per product is calculated automatically on each form.

According to the thesis expert, all evaluation forms in the sample were completed in an informative way: having read the materials and judged their quality, the expert was satisfied to note that both the scores and the comments of the respective assessors reflected their judgement. Overlooking the entire sample, the expert reported that the evaluation forms are very relevant instruments which give a lot of guidance in terms of what issues to consider under each criterion. Moreover, they were completed in an informative way as they provided concrete feedback and even suggestions for the future towards the students. This information was not only about the academic quality but also contained advice in terms of analytical skill development and writing and presentation skills. The expert also noted that the variation in the quality of the files was logical – and properly accounted for - as it reflected the different skills

levels of the individual students. This variety moreover signalled that the final project evaluation at TiSEM did not suffer from undesirable centrality bias.

As a point for attention in the future, the expert suggested to provide more guidance for the assessors on what each score level means. According to the programme team there have been some meetings with supervisors to discuss the grading standards and also the rubrics provide information on what is expected of students. There are plans to develop a more extensive scoring scheme which will allow each supervisor to determine the difference between the score levels.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this Accountancy programme.

In addition the panel endorses the findings of the thesis committee that the quality of assessment of the MSc File Accountancy is good. Although it is difficult to compare the thesis assessment to this new File assessment, it is clear to the thesis committee and to the panel that the different evaluation forms of the File are completed in an insightful way.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The PRT's general findings on thesis quality and graduate performance are valid for this master programme.

The final project of the programme is no longer a master thesis but a portfolio of four end products which together form the MSc File Accountancy and account for 12 ECTS. As part of the external assessment of this programme, the selection of the files was based on a list featuring 131 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (28% - 64% - 8%) in the sample, the expert reviewed 4 low quality, 9 average quality and 2 high quality files that had been assessed by a variety of supervisors and second readers.

According to the thesis expert, each of the fifteen files was clearly of sufficient quality to pass: hence, none of the portfolios was submitted to the thesis committee for a second opinion. In terms of grading, the expert agreed to all fifteen final scores given by the respective assessors. Therefore, the ranking of the thesis files was adequate: thesis portfolios with a higher score were indeed of better quality than those receiving a lower grade, while theses with an identical grade were of comparable quality.

The expert's opinion on the overall quality of the portfolio never differed much from the final grades. However, given that each File consisted of several deliverables, there were some divergences of opinion on individual assignment scores. In these cases the expert tended to consider that the individual assignment had been scored too positively, but there were also a few deliverables that deserved a higher score.

Overlooking the entire sample, the expert reported that the quality of the Files was high. The expert was particularly impressed by the quality of the research oriented files: the three assignments (business application, replication study, research note) were very interesting products which train different skills of students; the fourth deliverable, the reflection note, helps students in pinpointing where their investigation strengths and weaknesses lie. If anything, the expert mentioned that across the sample in a few cases the references used by the students were not always equally relevant and that, again in a few cases, students did not include recently published papers.

The PRT was informed that the labour market demand for accountants is high. According to the alumni survey, 69% of the Accountancy students already have a job at the time of their graduation and another 13% starts within a month after finishing the programme. Graduates mainly enter the financial service industry (81%) and often start working for a large audit company or at a financial institution.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that Accountancy graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the newly developed portfolio of end products is very good. Furthermore, the PRT considers that Accountancy graduates have the right end level qualifications to pursue a relevant position on the labour market that is commensurate with the level and substance of their master programme.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this Accountancy programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this master programme Accountancy at the Tilburg School of Economics and Management of Tilburg University.**

8. MSc Business Analytics and Operations Research

The master Business Analytics and Operations Research (BAOR) is a one-year full-time 60 ECTS programme. It focuses on generic mathematical models and methods for solving complex decision problems with a wide variety of applications. BAOR is one of three master programmes in the domain of quantitative economics at TiSEM.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention of these programmes to the developments in their respective professional domains are all valid for this particular master programme.

The panel gathers from the materials that for a long time already, TiSEM is offering three separate master programmes in quantitative economics: BAOR, Econometrics and Mathematical Economics (EME) and Quantitative Finance and Actuarial Science (QFAS). Since the previous accreditation, each programme received a dedicated (instead of a common/shared) Academic Director which in turn allowed the respective programmes to get a distinctive profile. There have always been very close structural and informal contacts between the programme teams, the teaching staff and the respective student cohorts. In view of this accreditation visit, the students produced one common contribution.

BAOR builds further on bachelor degrees in econometrics, operations research and (applied) mathematics and focuses on quantitative approaches (prescriptive and predictive business analytics) to optimisation, supply chain, machine learning and decision-making in companies and businesses. BAOR students do not only learn how to apply modern methods and techniques in these fields but also acquire the skills and responsibilities to develop new tools for mastering complex decision problems. Moreover, students acquire the skills to apply the theory in practice and to communicate effectively with decision-makers.

There are a few comparable programmes in the Netherlands and abroad, but the combination of Operations Research and Business Analytics in one dedicated programme is quite unique; operations research and/or business analytics very often form a specialisation within a broader master programme. All benchmark programmes have in common that students acquire advanced quantitative knowledge and skills and use these to solve complex problems with a variety of practical applications.

The PRT has studied the set of learning outcomes, which have been adjusted since the previous accreditation. Before, the focus was predominantly on optimisation and supply chain techniques whereas now the programme also addresses knowledge and skills to analyse and use (big) data to make better decisions. The formulation of the current learning outcomes is not only aligned with the structure of the Dutch Qualification Framework (NLQF) at master level 7 but also

continues to reflect the internationally accepted Dublin Descriptors. The panel notices that the learning outcomes are concrete in terms of content (BAOR), level (master) and orientation (academic). Moreover, they are specific to the field of BAOR and distinct from both EME and QFAS across all NLQF categories.

Further to the findings of the thesis committee and the clarifications provided by the programme team, the PRT notices that there is reference to ethics in terms of responsibility and independence in the learning outcomes but not to the ethical aspects of applying analytical techniques. According to the programme team, ethical behaviour is implied by the nature of the data and the ethics of the companies. Moreover two courses address the ethics of machine learning techniques and operations research models.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the current set of learning outcomes reflect the content, level and orientation of this BAOR programme. The learning outcomes constitute an adequate translation of the rationale of this particular programme and are formulated in a specific way that clearly distinguishes this BAOR programme from other quantitative programmes at TiSEM.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The PRT's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the programme is well thought-through. The curriculum consists of five core courses in operations research, business analytics and their applications (30 ECTS), two electives (12 ECTS) and a master thesis. Since the previous accreditation visit, the curriculum has been updated to include contemporary techniques related to gathering, processing and analysing (big) data. One course that was added in 2021-2022 combines machine learning and operations research.

Students who wish to do so can tailor their study programme towards a more theoretical and a more applied profile, which prepare for careers in academia and industry. This profiling starts in the courses and is very explicit in the master thesis (see standard 4). Outstanding students can participate in the Department's student research team; moreover, the BAOR staff and the study association organise a Hackaton where participants gain insight in the type of problems that are solved on a daily basis in industry.

It is a conscious choice of TiSEM and the programme team to offer the BAOR programme in English because the labour market is highly international. By doing so, the programme is attracting international students and part of the teaching staff is non-Dutch. In line with its overall appreciation of the choices TiSEM makes regarding the language of instruction in its degree programmes, the PRT supports the motivation of the team to offer this programme in English.

Students indicated in their joint contribution on BAOR, EME and QFAS that they appreciate the curriculum content because it prepares for the job market in the different fields of econometrics and through the broad offer of electives allows sufficient freedom to tailor the study programme to their individual liking. Moreover, TiSEM provides good information on the differences between the three quantitative programmes, as well as on the opportunities to take elective courses from these programmes or to combine two programmes. As cohorts are small, lecturers can provide more personal guidance in class. Finally, students appreciate the international orientation of the programme and the (geographical) diversity of both students and staff.

For quite some time the yearly intake has been stable at around 50 students. In the two most recent years, the number has increased by almost 50%. In 2021-2022, the total number of BAOR students amounts to 120. Only students with a solid background in mathematics and statistic, as well as a proficient level of English are admitted. While BAOR attracts attention from international students with an adequate mathematical background, they often lack sufficient prior knowledge in operations research techniques. Students indicated in their contribution that it would be beneficial for students who did not obtain their bachelor's degree in Tilburg to get a short (optional) crash course on BAOR topics at the start of the academic year. They got the inspiration for this idea by a similar initiative in the QFAS programme. According to the programme team, a short refresher course combining economics and quantitative topics is envisaged in the near future.

In terms of study progression, a few students per cohort drop out, usually those who did not study at Tilburg before. Most students do not finish the programme in the nominal duration of one year but do so in 18 months or two years. The panel notices that this delay is not caused structurally by the feasibility of the study load, but because students combine the thesis with an internship or follow two master programmes.

The self-evaluation contains an overview of the BAOR courses and their respective coordinators and lecturers. The staff team involved in the programme consists of 13 faculty, some of whom are international. The staff consists predominantly of professors who are active in the research areas in which they teach. Some faculty have part-time appointments and combine their academic tasks with work in the practice of BAOR. Students indicated that the staff is knowledgeable and offers an interesting combination of theory and practice in the courses. Moreover, students choose for quantitative programmes at Tilburg because of the small scale of the programme and the attention of the professors to the individual students.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the BAOR courses connect neatly to the overall programme objectives. The panel welcomes the attention of the programme to keep its curriculum contents up to date and considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable BAOR students to reach the intended learning outcomes. Furthermore, the PRT endorses the appreciation of the students for the link between theory and practice, for the way in which the curriculum prepares for a career in both academia and industry, and for the personalised attention of staff for students.

Given the international orientation of the programme and the composition of the cohorts, the PRT advises the programme to look for ways how to attract and retain resourceful (non-Dutch) students from outside Tilburg.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this master programme.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment forms are varied, that individual BAOR courses tend to use different forms of assessment and that these tests befit the course learning goals and contribute to the overall programme learning outcomes. The panel notices that the programme intends to maintain a few assessment-related practices that were introduced during the pandemic, such as more informed test inspection moments (a list of common mistakes that have been discussed during the exam inspection), more exam question solutions uploaded online, and more digital examinations (and thus automated grading and item analysis) for lower cognitive learning goals.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that assessors use an appropriate evaluation form to report on their assessment of the BAOR theses: according to the thesis expert, the evaluation criteria are varied, relevant and described in detail; the evaluation form invites assessors to score each criterion and motivate their appreciation in writing; both supervisor and co-reader complete a separate form; and the calculation of the final grade is explained on the form.

The expert reported that nine out of fifteen evaluation forms were completed in an informative way. In the other six cases, there were scores on the respective criteria but the written feedback was absent, extremely brief or uninformative. According to the expert, the evaluation forms can

be used in a better way: calling the column with explanations “notes” seems to indicate that providing a motivation is not emphasized by the programme. Hence, assessors tend to consider this column as optional by not providing any information or by essentially repeating the grades through statements as “very well done”. According to the programme team, the thesis assessment form includes qualitative descriptions per grade, which allows assessors to map the quality level of the students work into the corresponding grade of a component. Acknowledging the findings of the thesis committee and the reaction of the programme team, the PRT suggests to have both assessors give at least one line of insightful explanation in a clear and objective language on each of the key criteria they mark.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this BAOR programme. It welcomes the attention of the programme team to course assessment and the concrete plans they have to make assessment (even more) efficient and transparent after the pandemic.

In addition the panel endorses the findings of the thesis committee that the quality of thesis assessment is adequate. Compared to the previous accreditation visit, the evaluation forms are completed in a more insightful way. However, compared to the progress made in this respect across all TiSEM programmes, the BAOR programme team may want to encourage all assessors to provide insightful feedback in the thesis evaluation form.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel’s general findings on the thesis quality and on the performance of graduates are valid for this programme.

The final project consists of a master thesis that amounts to 18 ECTS. There are two formats: students can either opt for theoretical research under the supervision of a faculty member, or to combine the thesis with a company internship. The latter enables students to combine academic research with working on a real-life problem under the joint supervision of a faculty member and a company supervisor. Most students choose the latter option.

As part of the external assessment of this programme, an expert on the thesis committee reviewed a sample of 15 BAOR theses. The thesis selection was based on a list featuring 45 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (4% - 49% - 47%) in the sample, the expert reviewed 1 low quality, 7 average

quality and 7 high quality theses that had been assessed by a variety of supervisors and second readers.

According to the thesis expert, each of the fifteen theses was clearly of sufficient quality to pass; hence, none of the reports was submitted to the thesis committee for a second opinion. In terms of grading, the expert agreed more or less to thirteen out of fifteen final scores given by the respective assessors. In one case the expert scored the thesis one full point higher (8.5 instead of 7.5) because it addressed a complex topic which was well explained, because the data selection was non-trivial and the empirical analysis executed very carefully, and because the paper made an important societal contribution. In the other case, the expert gave a lower score (7.5 instead of 8.5) because the thesis did not make an original academic contribution and lacked critical reflection from managerial perspective. In addition to two considerable grade differences, the expert would have scored quite a few theses a bit (0.5 point) lower. All in all, the expert saw a tendency towards grade inflation. According to the expert this finding comes as no surprise when 8 is to be understood as 'good' in the evaluation form and 9 is said to be 'very good'.

Overlooking the sample, the expert reported that almost all theses used a broad and non-trivial collection of tools from business analytics and operations research, some of them achieving an exceptionally high level of analysis and results. This demonstrates that the students were very well educated in terms of technical aspects. Moreover, almost all theses were very readable and accessible for a reader who is not specialized in the particular field of expertise, many providing an informative management summary. Therefore, the graduates demonstrated to be well-trained in communicating complex mathematical subjects in a clear and understandable way. Furthermore, the programme managed to attract very challenging and interesting thesis topics provided by industry. As most students were able to solve the problem or at least provide valuable insights, the societal relevance of the thesis work, and thus of the programme, was very high.

As a point for attention, the expert reported that it was difficult to identify exactly what was known before and what was new, i.e. what are the new insights provided. Students focused on reporting what they did, and seemed a bit shy to state what the world could learn from their work. Moreover, as this programme is about Business Analytics and Operations Research, the expert would have expected more business aspects in the master thesis (if not, it could be a programme on Data Science and Operations Research). While a business (or economic) problem was present in almost all theses, it was there just to motivate a technical study and not to provide judgement and critical reflection of the managerial implications of the results. This is all the more surprising as the latter elements are part of the intended learning outcomes but are not listed as such in the thesis evaluation form criteria. Similarly, the expert would have expected that students covering an industry problem in their thesis, would transfer the generated insights to other cases. But also in these cases a reflection on the quality of the scientific achievement was missing in the grades and the evaluation form.

The PRT was informed that the career opportunities of BAOR students are excellent. Students easily find companies where they can combine an internship with master thesis work – notably in the domain of machine learning – and in many cases this internship leads to a job offer. Company supervisors tend to be very satisfied with BAOR students as they master complex decision problems and can formulate opinions based on incomplete and limited information. While most graduates pursue a professional career, the programme also offers a good preparation to join TiSEM's research master programme Business / Operations Research and enter directly in the second year.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that BAOR graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the thesis is good. The PRT also considers that BAOR graduates have the right end level qualifications to either pursue an academic career or obtain a relevant position on the labour market that is commensurate with the level and substance of their master programme.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this BAOR programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this master programme Business Analytics and Operations Research at the Tilburg School of Economics and Management of Tilburg University.**

9. MSc Econometrics and Mathematical Economics

The master Econometrics and Mathematical Economics (EME) is a one-year full-time 60 ECTS programme taught in English. It focuses on quantitative tools for solving complex economic problems and on the implementation of these tools in real-world applications with the goal to analyse and improve policy decision-making. EME is one of three master programmes in the domain of quantitative economics at TiSEM.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention of these programmes to the developments in their respective professional domains are all valid for this particular master programme.

The panel gathers from the materials that for a long time already, TiSEM is offering three separate master programmes in quantitative economics: EME, Business Analytics and Operations Research (BAOR) and Quantitative Finance and Actuarial Science (QFAS). Since the previous accreditation, each programme received a dedicated (instead of a common/shared) Academic Director, which in turn allowed the respective programmes to get a more distinctive profile. There have always been very close structural and informal contacts between the programme teams, the teaching staff and the respective student cohorts. In view of this accreditation visit, the students produced one common contribution. The split in three programmes allows EME to focus rigorously on most aspects of economics and offer a larger variety of econometric tools to tackle economic problems. Moreover, the smaller size of the programme allows to pay more attention to individual students and deliver the skills that are crucial on the job market.

The EME programme subscribes to the long-standing and broad definition of econometrics as a unification of the theoretical-quantitative and the empirical-quantitative approach to economic problems. It builds further on bachelor degrees in econometrics, operations research, (quantitative) economics and (applied) mathematics: whereas the prior education laid the foundations for thinking about real-world policy making, EME provides the advanced economic theory and the advanced econometric tools, together with empirical intuition and knowledge, to understand policymaking and critically appraise it.

There are a few comparable programmes in the Netherlands and abroad. All benchmark programmes have in common that students acquire advanced knowledge and quantitative skills to analyse economic phenomena and evaluate policies. The specific focus at TiSEM is on preparing students for a non-academic job through applied knowledge, communication skills and a responsible and independent attitude / character. Compared to other benchmark programmes in the Netherlands, EME provides the opportunity to acquire not only quantitative skills but also knowledge on economic theory as students follow the entire knowledge path

from economic modelling to finding data to identifying the best econometric techniques and applying these responsibly.

The PRT has studied the set of learning outcomes, which have been adjusted since the previous accreditation to match the current demands of the private and public labour market. The formulation of the current learning outcomes is not only aligned with the structure of the Dutch Qualification Framework (NLQF) at master level 7 but also continues to reflect the internationally accepted Dublin Descriptors. The panel notices that the learning outcomes are concrete in terms of content (EME), level (master) and orientation (academic). Moreover, they are specific to the field of EME and distinct from both BAOR and QFAS across all NLQF categories.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the current set of learning outcomes reflect the content, level and orientation of this EME programme. The panel appreciates the specific positioning of the programme within TiSEM and towards national and international benchmarks. The learning outcomes constitute an adequate translation of the rationale of this particular programme and are formulated in a specific way that clearly distinguishes this EME programme from other quantitative programmes at TiSEM.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The PRT's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the programme is well thought-through. The curriculum consists of four core courses to be taken from a list of seven (24 ECTS), three electives (18 ECTS) and a master thesis (18 ECTS). Since the previous accreditation visit, the curriculum has been reformed considerably in order to prepare students for the demands of the modern public and private job market. The core courses relate to economics and to econometrics; they can be taken independently of one another but any combination of four courses covers all learning outcomes. The core courses reflect the research strengths of the TiSEM departments involved. The electives are carefully chosen to match the programme learning outcomes and are categorized to allow students to specialise in a particular area of interest. Some electives provide students with a broader horizon on societal issues, such as climate change. By choosing these electives, students learn to apply their knowledge of econometrics to new areas and contribute to other fields

It is a conscious choice of TiSEM and the programme team to offer the EME programme in English because the academic domain of economics and econometrics and the methods developed over the years are all in English; moreover, the EME labour market is highly international. By doing so, the programme is attracting a good deal of international students and a considerable part of the teaching staff is non-Dutch. In line with its overall appreciation of the choices TiSEM makes regarding the language of instruction in its degree programmes, the PRT supports the motivation of the team to offer this programme in English.

Students indicated in their joint contribution on BAOR, EME and QFAS that they appreciate the curriculum content because it prepares for the job market in the different fields of econometrics and through the broad offer of electives allows sufficient freedom to tailor the study programme to their individual liking. Moreover, TiSEM provides good information on the differences between the three quantitative programmes, as well as on the opportunities to take elective courses from these programmes or to combine two programmes. As cohorts are small, lecturers can provide more personal guidance in class. Finally, students appreciate the international orientation of the programme and the (geographical) diversity of both students and staff.

Over the past five years the intake has almost doubled to 60 students. In 2021-2022, the total number of EME students amounts to 103. Currently about one third of the intake is international; the number and share of international students explains to a large extent the growth in student numbers. Following a targeted campaign in some German and Spanish universities that offer relevant bachelor programmes, students from these institutions are now joining EME. In their joint contribution students indicated that it would be beneficial for students to get a short (optional) crash course on EME topics at the start of the academic year. They got the inspiration for this idea by a similar initiative in the QFAS programme. According to the programme team, a short refresher course combining economics and quantitative topics is envisaged in the near future.

In terms of study progression, hardly any student drops out and those who do often switch to QFAS. Most students do not finish the programme in the nominal duration of one year but do so in 18 months (44%) or two years (close to 100%). The panel notices that this delay is not caused structurally by the feasibility of the study load, but because students combine the thesis with an internship or follow two master programmes.

The self-evaluation contains an overview of the EME courses and their respective coordinators and lecturers. The staff team involved in the programme consists of 22 faculty: half of these are international. Most professors are active in the research areas in which they teach. Students indicated that the staff is knowledgeable and offers an interesting combination of theory and practice in the courses. Moreover, students choose for quantitative programmes at Tilburg because of the small scale of the programme and the attention of the professors to the individual students.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the EME courses connect neatly to the overall programme objectives. The panel welcomes the attention of the programme to keep its curriculum contents up to date and considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable EME students to reach the intended learning outcomes. Furthermore, the PRT endorses the appreciation of the students for the link between theory and practice, for the way in which the curriculum prepares for a career in both academia and industry, and for the personalised attention of staff for students.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this master programme.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment forms are varied, that individual EME courses tend to use different forms of assessment and that these tests befit the course learning goals and contribute to the overall programme learning outcomes. The panel notices that the programme intends to maintain a few assessment-related practices that were introduced during the pandemic, such as more informed test inspection moments (a list of common mistakes that have been discussed during the exam inspection), more exam question solutions uploaded online, and more digital examinations (and thus automated grading and item analysis) for lower cognitive learning goals.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that assessors use an appropriate evaluation form to report on their assessment of the EME theses: according to the thesis expert, the evaluation criteria are varied, relevant and described in detail; the evaluation form invites assessors to score each criterion and motivate their appreciation in writing; both supervisor and co-reader complete a separate form; and the calculation of the final grade is explained on the form.

According to the expert, all fifteen evaluation forms are completed in an informative way: the forms are well documented and transparent. Nonetheless, sometimes there is no variation in the sub-scores for the individual components; in these cases, it seems the overall grade was determined first, and the sub-grades were given accordingly. According to the programme team, sub-grades and judgements are the basis for assessing the thesis by the assessors. This often begins with an overall judgement towards a final grade. The sub-scores might have been filled in afterwards for practical reasons (avoiding calculation time during the defence and missing

scores until the defence has taken place). This, however, does not mean that the thesis has not been weighted on the sub-dimensions because these are specifically linked to what the programme expects from a thesis. Moreover, assessors are expected to discuss the substance of any discrepancy between their sub-scores.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this EME programme. It welcomes the attention of the programme team to course assessment and the concrete plans they have to make assessment (even more) efficient and transparent after the pandemic.

In addition the panel endorses the findings of the thesis committee that the quality of thesis assessment is good. Compared to the previous accreditation visit, the evaluation forms are completed in a more insightful way.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel's general findings on the thesis quality and on the performance of graduates are valid for this programme.

The final project consists of a master thesis that amounts to 18 ECTS. There are two formats: students can either opt for theoretical research under the supervision of a faculty member, or to combine the thesis with a company internship. The latter enables students to combine academic research with working on a real-life problem under the joint supervision of a faculty member and a company supervisor. Most students choose the latter option.

As part of the external assessment of this programme, an expert on the thesis committee reviewed a sample of 15 EME theses. The thesis selection was based on a list featuring 39 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (0% - 64% - 36%) in the sample, the expert reviewed no low quality, 9 average quality and 6 high quality theses that had been assessed by a variety of supervisors and second readers.

According to the thesis expert, each of the fifteen theses was clearly of sufficient quality to pass; hence, none of the reports was submitted to the thesis committee for a second opinion. Overlooking the entire sample, the expert reported that the average quality of the theses was high with some theses being even more than good. The theses were well embedded in the academic literature and well-structured. The research questions were both academically

interesting and practically relevant. Students used methods and techniques that were clearly up to master level.

In terms of grading, the expert agreed more or less to fourteen out of fifteen final scores given by the respective assessors. The thesis with the highest score of the sample (9.5) did not seem to be of significantly higher quality than the theses that received a final score of 8.5. As a point for attention, the expert mentioned that assessors seemed reluctant to be strict (but fair) in their scoring: in several cases the assessors had been slightly more generous in their scores than one would expect based on the feedback in the evaluation form; in quite a few cases the expert would have scored the theses a bit (0.5 point) lower. In line with the findings on the BAOR theses, this expert noticed a tendency towards grade inflation, which comes as no surprise when 8 is to be understood as 'good' in the evaluation form and 9 is said to be 'very good'.

The PRT was informed that EME graduates have excellent career opportunities. Students easily find companies where they can combine an internship with master thesis work and in many cases this internship leads to a job offer. Company supervisors tend to be very satisfied about the maturity and the technical, practical and communication skills of the EME students. Most graduates pursue a career as analysts, consultants or policy advisors at banks, insurance companies and governmental bodies; only a small fraction pursues a PhD.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that EME graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the EME thesis is very good. Furthermore, the PRT considers that EME graduates have the right end level qualifications to pursue a relevant position on the labour market that is commensurate with the level and substance of their master programme.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this EME programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this master programme Econometrics and Mathematical Economics at the Tilburg School of Economics and Management of Tilburg University.**

10. MSc Economics

The master in Economics is a one-year full-time 60 ECTS programme. It aims at transforming students who have learned many techniques of the modern methodological economics toolkit into graduates who think like an economist and independently apply theories and methods to policy questions.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention of these programmes to the developments in their respective professional domains are all valid for this particular master programme.

The panel gathers from the materials that at TiSEM, the discipline of economics is not seen as a subject matter but as a toolkit of mostly quantitative techniques and specific theories that allow to study virtually any question in the social sciences and can maximise virtually any goal. Hence, the programme aims to teach students to think like an economist and to approach and solve policy and management problems with the economics toolkit.

There are several benchmark programmes in the Netherlands and abroad, who invariably offer a combination of methods courses and applied economics courses in subfields. The programme at Tilburg stands out because it specialises in applied economics from the beginning and because it offers tracks in behavioural economics and in data science. TiSEM has a long-standing research reputation in behavioural and experimental economics.

The PRT has studied the set of intended learning outcomes, which have changed somewhat since the previous accreditation visit adding reference to the domain of data science. The formulation of the current learning outcomes is not only aligned with the structure of the Dutch Qualification Framework (NLQF) at master level 7 but also continues to reflect the internationally accepted Dublin Descriptors. The panel notices that the learning outcomes are concrete in terms of content (economics), level (master) and orientation (academic). Although the programme features seven tracks, there are no specialisations that require dedicated learning outcomes: according to the programme team, the main goal is to learn to think as an economist and to master some modern tools of economics; while these tools differ per specialisation, it is of lesser importance within the overall objective of the programme.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the current set of learning outcomes reflect the content, level and orientation of this MSc programme in Economics. The panel appreciates the specific positioning of the programme towards national and international benchmarks. The learning outcomes constitute an adequate translation of the particular rationale of this programme.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The PRT's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the programme is well thought-through. The economics curriculum consist of three elements: methods courses (9 ECTS), field seminars (30 ECTS) and projects (21 ECTS). Students can choose one of six specializations or completely tailor an individual programme. Each track represents a bundle of courses that are societally relevant and complementary to each other in developing specialized knowledge and skills. Overall, the programme offers courses for a total of 108 ECTS. In line with the programme vision that economics is a toolkit, the study programme is highly customisable. Students can combine the master thesis (18 ECTS) with an internship at a company or an institution outside the university.

Students indicated in their contribution – which took the format of a podcast – that they appreciate the different specialisations and the degree of freedom to put together a personalised study plan. Nonetheless, students mentioned they do not always find it easy to choose a specialisation. In these cases, they can ask for personal advice. When choosing electives, they need to motivate their choice and check the coherence of their overall study programme. This approach has resulted in a programme with a high degree of flexibility, which students value as a unique characteristic of the programme. The panel notices furthermore that the programme team is aware of the challenges students experience in the programme and reported in their podcast; where possible these flaws are discussed and possibly addressed together with the students.

It is a conscious choice of the school and the programme to offer this Economics programme in English as this is the language of both academia and industry, also in the Netherlands. This has resulted in geographically diverse student cohorts and teaching teams. In fact, this programme is one of TiSEM's most international programmes as measured by the share of international students and the number of nationalities. In line with its overall appreciation of the choices TiSEM makes regarding the language of instruction in its degree programmes, the PRT supports the motivation to offer this programme in English.

The programme is spread over four units and students can enrol both in Fall and in Spring. The curriculum is designed in the first place to benefit the students who start in September and which represent more than 80% of the yearly intake. This approach is clearly communicated on the

website and has been discussed with students. Those who enrol in Spring are clearly aware of the particular curriculum structure but prefer to start rather than to wait another six months.

Over the past five years, the student intake has increased from 69 to 100. The total number of economics students in 2020-2021 was 168. About half of the students are international. This growth has not been a problem because the curriculum offers many courses, which in turn keeps the student number per course relatively small. In terms of study progression, there are more students who finish the programme within the nominal duration of one year when they start in September. Combining both entry moments, about 80% of the students finishes within two years.

The self-evaluation contains an overview of the Economics courses and their respective coordinators and lecturers. The teaching team consists of 45 staff. The panel notices that the academic staff have an academic research agenda that is closely related to the topics of the courses they offer. Students mentioned that they appreciate the know-how, didactics and involvement of the teaching staff.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the Economics courses connect neatly to the overall programme objectives. The specific features of this programme are clearly visible in the curriculum. The panel considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable Economics students to reach the intended learning outcomes. Moreover, the choice for English as language of instruction has been very effective as the programme now has one of the highest shares of international students and staff across the School.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this master programme.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment forms are varied, that individual Economics courses tend to use different forms of assessment and that these tests befit the course learning goals and contribute to the overall programme learning outcomes. The panel notices that many courses are offered by a team of lecturers which entails that exams are a joint product of the lecturing team who cross-check the design and the delivery of the assessment. Moreover, professors enjoy considerable freedom in deciding on the exam format.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that assessors use an appropriate evaluation form to report on their assessment of the Economics theses: according to the thesis expert, the evaluation criteria are varied, relevant and described in detail; the assessment form invites assessors to score each criterion and motivate their appreciation in writing; both supervisor and co-reader complete a separate form; and the calculation of the final grade is explained on the form.

While not always agreeing to the final scores, the expert reported that in thirteen out of fifteen cases, the evaluation form was completed in an insightful way. Nonetheless, the expert mentioned that in several cases there was hardly any difference in grading between the supervisor and the co-reader. Moreover, the expert indicated that the evaluation could become more relevant if assessors would include a general reflection on and overall appreciation of the thesis. The programme team mentioned that it will take on board the latter suggestion in its evaluation of the assessment form.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this Economics programme. The panel welcomes the efforts of the lecturing team to develop and deliver exams jointly.

In addition the panel endorses the findings of the thesis committee that the quality of thesis assessment is good. The PRT is satisfied to endorse the overall appreciation of the thesis expert, who had been involved in the previous external review, that the evaluation forms are now completed in a much more insightful way.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel's general findings on the thesis quality and on the performance of graduates are valid for this programme.

The final project consists of a thesis which accounts for 15 ECTS. It is an individually designed research question related to the analysis of economic aspects of an incentive or market problem. The research question can be selected by the student independently, based on topics/projects suggested by supervisors, or in cooperation with a third party (company or research organization). Only a minority of students combine the thesis with an internship.

As part of the external assessment of this programme, an expert on the thesis committee reviewed a sample of 15 Economics theses. The thesis selection was based on a list featuring 72 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (15% - 58% - 26%) in the sample, the expert reviewed 3 low quality, 8 average quality and 4 high quality theses that had been assessed by a variety of supervisors and second readers. The sample contained theses across the different programme tracks.

According to the expert, fourteen out of fifteen theses were clearly of sufficient quality to pass. One thesis was submitted to the committee for a second opinion: both expert and second reviewer agreed that while the topic is interesting and relevant, the thesis fell short in several respects, ranging from positioning in the literature, analytical set-up, formatting, presentation of results and reflection on the outcomes. In fact it read like a first draft of what could become an interesting piece of work. Hence, the committee considers that fourteen out of fifteen theses are of sufficient quality.

Overlooking the entire sample, the expert reported that the theses generally dealt with relevant topics. As students covered a wide variety of topics it seemed that there was considerable freedom for students to come up with a topic of their own choice. Moreover, the analyses were generally of high quality. Several theses, however, were somewhat lacking in terms of presentation and editing.

In terms of grading the expert agreed to ten out of fifteen final scores given by the respective assessors. In addition to the above-mentioned case, the expert reported four other cases where the final score was too high; moreover, in several other cases the expert arrived at a slightly lower score. All in all it seems that there is some tendency towards / risk of grade inflation.

The PRT was informed that the Economics programme has a distinctly applied character with a clear labour market focus. Hence, the programme strives to make its students employable right upon graduation. This ambition is visible in one of the core courses, in several career oriented activities and a number of workshops. Particular attention is given to the international students. These efforts seem to pay off: programme graduates manage to find a job quickly, occupy a wide range of diverse positions (asset managers, consultants, policy advisors at national and international level) and deal with very different issues (HR, monetary policy, development aid).

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that Economics graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the thesis is adequate. As a point for attention, the programme should look into the level of grading.

Furthermore, the PRT considers that Economics graduates have the right end level qualifications to pursue a relevant position on the labour market that is commensurate with the level and substance of their master programme.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this Economics programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this master programme Economics at the Tilburg School of Economics and Management of Tilburg University.**

11. MSc Finance

The master in Finance is a one-year full-time 60 ECTS programme taught in English. It is a specialised academic programme oriented towards finance experts in the field of corporate finance and investments and prepares students for job positions as controller, finance consultant, financial analyst or financial advisor.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention of these programmes to the developments in their respective professional domains are all valid for this particular master programme.

The panel gathers from the materials that the Finance programme focuses on investments / asset pricing and on corporate finance. Students acquire a broad and up-to-date knowledge of theoretical tools and learn how to apply these tools in practice. Moreover, they are trained to communicate effectively in written and oral presentations and to become responsible and independent finance professionals.

The programme offers two tracks: a general track and the Chartered Financial Analyst (CFA) track. The latter covers big part of the level 1 exam of the CFA programme offered by the CFA institute. Further to its observations regarding the school-wide programme portfolio, the panel inquired whether the programme planned to focus on FinTech. According to the programme team, the school recently hired a colleague with relevant teaching and research expertise who will be involved in teaching several lectures on FinTech. There are also plans to introduce a Data Science track where FinTech courses would fit nicely.

The PRT has studied the intended learning outcomes, which have been adjusted since the previous accreditation. The current set of learning outcomes is not only aligned with the structure of the Dutch Qualification Framework (NLQF) at master level 7 but also continues to reflect the internationally accepted Dublin Descriptors. The panel establishes that the learning outcomes are concrete in terms of content (finance), level (master) and orientation (academic). Moreover, in its formulation of learning outcomes the programme takes into account the requirements of the CFA institute as TiSEM is a partner of the CFA programme.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the current set of learning outcomes reflect the content, level and orientation of this Finance programme. The panel thinks that the revision exercise has been successful because the learning outcomes address all competencies, reflect the key values of the university and the school, and comply with the requirements of the professional field.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The PRT's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the programme is well thought-through. The general track of the curriculum consists of three mandatory courses (18 ECTS) and four electives (24 ECTS) while students on the CFA track have four mandatory courses and a more limited choice of three electives tailored to the CFA Candidate body of knowledge; all students finish their study with a master thesis (18 ECTS). Students welcome the flexibility of the curriculum, as well as the opportunity they get to combine the master thesis with an internship at a company or institution.

The academic year is split in four units of two courses each with electives being offered as of unit 2. The mandatory courses are the theoretical fundament of the programme, contain mainly topics related to theory and methodology and consist of lecturers to the entire group of students. The elective courses are offered in smaller groups and allow for more interactive teaching.

In line with its overall appreciation of the choices TiSEM makes regarding the language of instruction in its degree programmes, the PRT endorses the motivation to offer the Finance programme in English: Finance is a global discipline and very internationally oriented. Alumni who work in the Netherlands for domestic companies often work in an international environment where English is the default language of communication.

Over the past five years the average intake of Finance students was about 270 with the total number of students being around 500. In 2020-2021 about 20% of the students was international. Most students entered the programme after a bachelor degree from Tilburg University, notably BE, IBA or EBE. The share of students entering/graduating the CFA track has decreased and is now around 25%. In terms of study progress, a growing number of students graduate within the nominal duration of one year (up to 40%) while 80% does so in two years.

The self-evaluation report contains an overview of the Finance courses and their respective coordinators and lecturers. The panel notices that the 24 academic staff involved in the programme are active researchers who teach courses that are closely linked to their own research agenda and the research projects of the Finance department. More than half of the lecturers are non-Dutch. While the number of students has grown in recent years, the staffing has not increased to the same extent. Hence, the staff-student ratio has become less favourable which in turn makes it challenging to maintain high quality education. The students think highly of the faculty who are both knowledgeable researchers and skilled teachers. Students appreciate

the interactive character of many courses as well as the variety of perspectives that are offered in the course. Moreover, students emphasised that even during the pandemic, both the school in general and the lecturers in particular continued to teach in an effective way maintaining high quality standards.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the Finance courses connect neatly to the overall programme objectives. The panel considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable Finance students to reach the intended learning outcomes. The PRT subscribes to the international orientation of the programme and therefore encourages the programme team to attract an even more diverse body of students. It endorses the input from the Finance students confirming the quality of the programme in general and the teaching staff in particular.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this master programme.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment forms are varied, that individual Finance courses tend to use different forms of assessment and that these tests benefit the course learning goals and contribute to the overall programme learning outcomes. Given the organisation of the programme in short study units, there is little time for intermediate formative assessment. Moreover, as the growing number of students has not yet been followed by an equal growth in staff, there are not so many opportunities for individualised feedback on assignments or presentations. Students indicated in their contribution that the assessments are complex but that the quality of the lectures and the resources provided by the teaching team allow to prepare very well for the exams. According to the students, this quality was maintained during the pandemic.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that assessors use an appropriate evaluation form to report on their assessment of the Finance theses: according to the thesis expert, the evaluation criteria are varied, relevant and described in detail. Moreover, the form invites assessors to score each criterion and motivate their appreciation in writing; both supervisor and co-reader complete a separate form; the calculation of the final grade is explained on the form.

Overlooking the entire sample, the expert reported that in ten out of fifteen cases the evaluation forms were completed in an informative way. In these cases the expert agreed to the assessment,

both in terms of (quantitative) scoring and (qualitative) feedback. These evaluations demonstrate that the assessors have made a serious effort to read the theses accurately and evaluate them consciously. In the five other cases, the expert agreed to the scores on the respective criteria but found that written feedback was absent, extremely brief or uninformative. While as a principle this is not very insightful, it is all the more necessary according to the thesis committee – and the panel - that students who get relatively low scores on (some criteria of) their thesis received an explanation of what the assessors saw as the main problems that lead to these lower scores.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this Finance programme.

In addition the panel endorses the findings of the thesis committee that the quality of thesis assessment is adequate. Compared to the previous accreditation visit, the evaluation forms are completed in a more insightful way. However, compared to the progress made in this respect across all TiSEM programmes, the Finance programme team may want to encourage all assessors to provide insightful feedback in the thesis evaluation form.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel's general findings on thesis quality and graduate performance are valid for this master programme.

The final project consists of a master thesis of 18 ECTS: an individually developed research question that is related to the recent literature on a specific finance topic chosen by the student. As part of the external evaluation of this programme, an expert on the thesis committee reviewed a sample of 15 Finance theses. The thesis selection was based on a list featuring 220 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (12% - 72% - 16%) in the sample, the expert reviewed 2 low quality, 10 average quality and 3 high quality theses that had been assessed by a variety of supervisors and second readers. The sample contained theses from both Finance and CFA (Chartered Financial Analyst) specialisations.

According to the expert, each of the fifteen theses was clearly of sufficient quality to pass; hence, none of the reports was submitted to the thesis committee for a second opinion. In terms of grading, the expert agreed to all fifteen final scores given by the respective assessors. Therefore, the ranking of the theses in the sample was adequate: theses with a higher score were

indeed of better quality than those receiving a lower grade, while theses with an identical grade were of comparable quality.

Overlooking the entire sample, the expert was satisfied with the quality of the theses, which tended to be (very) good scientific papers. Students used the generally accepted form for a scientific paper and expressed good knowledge of the topic they were investigating. Overall, the hypotheses were well embedded in relevant scientific research. The empirical analyses tended to be carefully done. The expert had the impression that students understood their topic and the hypotheses they were formulating very well.

The expert also appreciated that several theses addressed fairly original topics, and that some of the analyses went further than simply replicating an existing study. In several theses, moreover, the analysis was based on data which were hand-collected by the student. This typically led to more interesting research than studies based on readily available datasets. According to the expert, some of these theses could be accepted in good academic journals.

As a point for attention in the future, the expert mentioned the potential practical relevance of the thesis topics. Given that it is a component of the evaluation form, this part deserves more attention when students write their thesis. This is all the more important according to the expert as most students will not continue in academia upon graduation. According to the programme team, there is room for students to do so when they opt to conduct their master thesis research in conjunction with an internship. In that case, they use the master thesis to tackle practical problems of the internship company in an academic way. Moreover, students can suggest their own thesis topics: some of these topics are relevant for investors and companies and interesting from both an academic and a practical perspective.

The PRT was informed that most Finance graduates find a job in the financial sector, with consultancies and in large industrial firms such as Rabobank, ING, EY, PWC, Philips and ASML. They often start in a position as financial analyst or consultant. Moreover, students who followed the CFA track and join an investment company can enter the CFA programme.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that Finance graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the thesis is very good. Furthermore, the PRT considers that Finance graduates have the right end level qualifications to pursue a relevant position on the labour market that is commensurate with the level and substance of their master programme.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this Finance programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this master programme Finance at the Tilburg School of Economics and Management of Tilburg University.**

12. MSc Information Management

The master in Information Management is a one-year full-time 60 ECTS programme taught in English. It aims to educate students in advanced knowledge, skills, and practices in modern information management and prepare them for strategic information management roles.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention of these programmes to the developments in their respective professional domains are all valid for this particular master programme.

The panel gathers from the materials that the programme provides students with a solid understanding of relevant and contemporary scientific concepts, theories, methods, and techniques in information management. The majority of the students will find employment at (consultancy) companies and governmental institutions. Hence, it is important that they are able to apply and understand the theoretical concepts, methods, and techniques of business-IT alignment and management of information systems in practice, not only for today's challenges but also for those yet unknown contexts of tomorrow. Moreover, they must be able to communicate their conclusions and the underpinning knowledge and rationale to specialist and non-specialist audiences clearly and unambiguously.

Several universities in the Netherlands offer programmes in information management or information systems, each with their own specific profile and approach. The typical Tilburg approach is that the Information Management programme is embedded in the School of Economics and Management; hence, the majority of graduates are employed in professions that require a combination of expertise in the fields of economics, information systems, and organization theory.

The PRT has studied the intended learning outcomes, which have been adjusted since the previous accreditation. The current set of learning outcomes is not only aligned with the structure of the Dutch Qualification Framework (NLQF) at master level 7 but also continues to reflect the internationally accepted Dublin Descriptors. The panel establishes that the learning outcomes are concrete in terms of content (information management), level (master) and orientation (academic).

Moreover, in its formulation of learning outcomes the programme has taken into account the worldwide standards in information systems as developed by the Association for Computing Machinery (ACM) and the Association for Information Systems (AIS). The self-evaluation report describes in good detail how the Information Management programme relates to both standards.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the current set of learning outcomes reflect the content, level and orientation of this MSc programme in Information Management. Moreover, the panel considers that the rationale of the programme and the Tilburg approach to the discipline of Information Management is clearly visible in the learning outcomes.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The PRT's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the programme is well thought-through. The curriculum consists of four mandatory courses (24 ECTS), three elective courses (18 ECTS) and a master thesis (18 ECTS). Two important themes across the programme are Governance and Data-driven innovation: the former takes a defensive view on information management, the latter an offensive view (creating value with data). According to the programme team, the compulsory courses balance between organisation/governance related subjects and technology/data-driven innovation related subjects. This balance is also maintained in the set of electives.

In line with the research-based learning approach of Tilburg, students pay much attention to scientific articles and to performing research. Given that most student continue their career in industry rather than academia, the programme also emphasises writing and presentation skills, while faculty use practical cases and invite guest lecturers.

Because technical developments in the field of information management require continuous innovation, the panel was informed that there have been quite some developments in term of courses (Cybersecurity, Advanced Data Management, Data Transformation) and course contents (Innovation & Digital Transformation, Business Analytics & Emerging Trends) since the previous accreditation.

The programme has a clear international dimension because information management is an international field. The programme is offered in English by a geographically diverse teaching staff: it prepares students for a career in an international multi-cultural environment and attracts international students. Moreover, information management students can extend their studies through two double degree programmes: a two-year master in Management of IT and a 18-month programme on Information Technology for Enterprise Management. In line with its overall appreciation of the choices TiSEM makes regarding the language of instruction in its

degree programmes, the panel fully supports the motivation to offer this MSc Information Management in English.

In their written contribution students present a detailed appreciation of each compulsory and elective course. While their overall feedback is rather positive, the most striking point for attention is the workload of the courses in general and of the master thesis in particular. With regard to the latter, students indicated that the time in which they have to write their thesis is rather short. It seems that the programme tries to put so many – admittedly interesting – topics in the programme that it looks as if materials for a two-year programme are squeezed into one year which in turn only allows for two to three months of dedicated attention to the master thesis. The panel advises the programme team to discuss the organisation and timing of the thesis trajectory with the students.

Over the past five years the intake has fluctuated between 127 students (in 2018-2019) and 166 (in 2020-2021). Most students hold a bachelor degree from TiSEM, while a growing share of students join the programme after a pre-master programme. About 10-15% of the students is non-Dutch. Given the international orientation of the programme, the panel welcomes the intentions of the programme team to attract more non-Dutch students. The diverse intake is reportedly positive for the study climate but challenging in terms of the entry level. Hence, lecturers specify which prior knowledge is desired and prompt students to prepare themselves before the course. In terms of study progress, hardly any student drops out. Roughly two-thirds of the students starting in September finish the programme within the nominal duration of one year; taken both entry moments together, almost 80% finishes the programme in two years.

The self-evaluation contains an overview of the courses and their respective coordinators and lecturers. As information management is an interdisciplinary field, this is reflected in the academic staff: about half of the team has a background in computer science or information management, while the other half is linked to business or social sciences. The panel notices that the staff consists predominantly of professors who are active in research. Two thirds have an international background and a quarter is female. Compared to the previous accreditation visit, the share of staff holding a university teaching qualification has increased enormously, from 30% to 92%.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the Information Management courses connect neatly to the overall programme objectives. In this regard, the curriculum reflects clearly the strengths and the distinctive features of the school and the university. The panel considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable Information Management students to reach the intended learning outcomes. In view of the growing interest in the programme and the increasingly diverse composition of the cohorts, the panel encourages the programme to set clear expectations as to the minimum level of prior knowledge that is expected from applicants before starting the programme.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this master programme.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment forms are varied, that individual Information Management courses tend to use different forms of assessment and that these tests benefit the course learning goals and contribute to the overall programme learning outcomes. The panel notices in this regard that the programme is considering more computer-based exams because this allows for automation and saves time. Similarly, given the student numbers and the limited staff capacity, there are no opportunities for large individual assignments with personalised feedback, apart from the thesis. The PRT acknowledges these developments and reflections and welcomes the confirmation in the self-evaluation report that programme will maintain a variety of assessment methods and a good balance between the different courses within a unit.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that assessors use an appropriate evaluation form to report on their assessment of Information Management theses: according to the thesis expert, the evaluation criteria are relevant and described in detail; the evaluation form invites assessors to score each criterion and motivate their appreciation in writing; both supervisor and co-reader complete a separate form; the calculation of the final grade is explained on the form.

Overlooking the entire sample, the expert reported that the review process was well balanced and that all evaluation forms were completed in an informative way. The assessments were truly critical and fair and no major items remained unattended. Having been involved in a similar review exercise at the previous accreditation round, the expert complimented the school and the programme for the quality of the theses and the review process: while Information Management is always a tricky area in terms of supervision quality, TiSEM seems very well organized in this area. Moreover, the expert noted that compared to the previous accreditation round, the quality of the thesis was at least on the same level while the quality of the assessment process had improved considerably.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this Information Management programme.

In addition the panel endorses the findings of the thesis committee that the quality of thesis assessment is very good. Compared to the previous accreditation visit, the evaluation forms are completed in a more insightful way.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel's general findings on thesis quality and graduate performance are valid for this programme.

The final project consists of a master thesis that accounts for 18 ECTS. Students can choose their topic, which has to be accepted by the thesis coordinator and the supervisor. Very often, the subject is linked to the company where students do their internship.

As part of the external assessment of this programme, an expert on the thesis committee reviewed a sample of 15 Information Management theses. The thesis selection was based on a list featuring 125 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (12% - 70% - 18%) in the sample, the expert reviewed 2 low quality, 10 average quality and 3 high quality theses that had been assessed by a variety of supervisors and second readers. The sample contained theses from both the default programme Information Management and the International Master Management in IT (IMMIT).

According to the expert, each of the fifteen theses was clearly of sufficient quality to pass; hence, none of the reports was submitted to the thesis committee for a second opinion. In terms of grading, the expert agreed to all fifteen final scores given by the respective assessors. Therefore, the ranking of the theses in the sample was adequate: theses with a higher score were indeed of better quality than those receiving a lower grade, while theses with an identical grade were of comparable quality. Overlooking the entire sample, the expert was impressed by both the quality of the theses and their grading. The quality of most theses was high and the individual theses covered all elements they are supposed to treat and at the edge of what may be expected at this level.

The PRT was informed that most students opt for a career in industry and that career opportunities of Information Management students are very good. In most cases, students combine their thesis with an internship, which is then often followed by a job contract. According to National Alumni Survey scores, Information Management students appreciate the career preparation offered by the programme, and this to a larger extent than many other peers at TiSEM: 67% agrees "to a very large extent" that the programme constitutes a good starting

point for entering the job market and score the programme's preparation for employment as 4 on 5; the corresponding results for TiSEM are 30% and 3.5.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that Information Management graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the theses is very good. Furthermore, the PRT considers that Information Management graduates are well prepared during their studies for the labour market and have the right end level qualifications to pursue a relevant position on the labour market that is commensurate with the level and substance of their master programme.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this Information Management programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this master programme Information Management at the Tilburg School of Economics and Management of Tilburg University.**

13. MSc International Management

The master International Management is a one-year full-time 60 ECTS programme taught in English. It aims to provide students with a clear understanding of how the core business disciplines finance, marketing, accounting, and management can be used in an international context, and teaches them the skills that are required to have a successful career as a manager in multinational firms.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention of these programmes to the developments in their respective professional domains are all valid for this particular master programme.

The panel gathers from the materials that the programme offers a broad basis in business disciplines. Several universities in the Netherlands and abroad offer similar programmes. In comparison, the International Management programme in Tilburg focuses on research-based learning and skills development. Moreover, the curriculum consists of mandatory courses whereas other programmes often offer specialisations or elective courses.

The PRT has studied the intended learning outcomes, which have been adjusted and updated since the previous accreditation. The new set of learning outcomes emphasise more than before the cross-cultural skills, the problem-solving skills and the capacity of students / graduates to deal with increased levels of global turbulence faced by multinational firms. In this way, the new learning outcomes reflect the current vision and strategic values of the university and the school.

Furthermore, the PRT notices that the current set of learning outcomes is not only aligned with the structure of the Dutch Qualification Framework (NLQF) at master level 7 but also continues to reflect the internationally accepted Dublin Descriptors. The panel establishes that the learning outcomes are concrete in terms of content (international management), level (master) and orientation (academic).

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the current set of learning outcomes reflect the content, level and orientation of this International Management programme. Moreover, the panel considers that the rationale of the programme and the Tilburg approach to the discipline of International Management is clearly visible in the learning outcomes.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The PRT's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the programme is well thought-through. As a generalist programme, the curriculum covers the main business disciplines through five domain courses and three skills courses. The programme is structured in four units and has two entry moments: since each course focuses on one business discipline it is possible for students to also join in February without a major impact on their learning process. The master thesis preparation starts in the second unit, while the fourth unit is fully reserved to this graduation project. The students indicated in their contribution that the programme offers a wide range of courses with a strong emphasis on the international aspect; together they equip students to become managers in their future career. According to the programme team, the course contents are checked on a yearly basis to keep the curriculum up to date.

The programme has a distinctly international orientation: the domain is international by nature, the language of instruction is English, the programme is taught by predominantly non-Dutch faculty and the audience is a mixture of Dutch and international students. In line with its overall appreciation of the choices TiSEM makes regarding the language of instruction in its degree programmes, the PRT fully supports the motivation to offer this MSc International Management in English.

Over the past five years, the average intake was about 70 students: roughly 40% join with a bachelor degree from Tilburg, 30% enrolled after a pre-master programme and another 30% comes from another university. Roughly two thirds of the students are Dutch and one third international. In terms of study progress, hardly any student drops out and around 60% of the students finish the programme within the nominal duration of one year, while 76% does so in 18 months and 90% after two years. According to the programme team, these success rates are somewhat higher than in other master programmes at TiSEM because it is a relatively small programme where students feel incentivised to not only start but also finish as a single cohort.

The self-evaluation report contains an overview of the International Management courses and their respective coordinators and lecturers. Coordinators belong to several business-related departments at TiSEM and are active researchers in the domain they cover in the programme. According to the students, the lecturers have outstanding knowledge about their area of expertise and give the students a strong basis. However, different backgrounds and diverse personalities of the lecturers results in a wide array of teaching and communication styles, which sometimes leave room for improvement. The programme team is aware of this diversity and sees this as a strength of the programme. The individual quality of teaching and

communication is assessed and monitored regularly through student evaluations and sounding board meetings to ensure the overall quality of education.

Compared to the self-evaluation reports of other master programmes at TiSEM, the panel notices that this International Management programme reports extensively on the programme-specific facilities. Every year (COVID-19 permitting) the programme organises a partly subsidised international study trip. Moreover students have the opportunity in the so-called international study week to go on a one-week exchange to a partner university. Since 2019, the programme is also implementing Integrated Job Market Workshops: students are expected to attend at least two workshops (on talent management, online networking, personal leadership, etc.) which help them identify which job is best for them and how to get it. In their contribution, students emphasised the quality and importance of the material facilities on the Tilburg campus, as well as the opportunities the programme offer for students to set themselves apart professionally from other graduates.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the International Management courses connect neatly to the overall programme objectives. In this regard, the curriculum reflects clearly the strengths and the distinctive features of the school and the university. The panel considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable International Management students to reach the intended learning outcomes.

The panel welcomes the international orientation of the programme in its different dimensions. While the programme is generalist and the curriculum is fixed, the panel thinks highly of the programme-specific facilities that allow students to set themselves apart from other graduates in view of their professional integration on the labour market.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this master programme.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment forms are varied, that individual International Management courses tend to use different forms of assessment and that these tests benefit the course learning goals and contribute to the overall programme learning outcomes. In this regard, the COVID-19 pandemic challenged the programme to re-think student assessment. Using proctoring software was a good but temporary solution: it guaranteed the reliability of the online exams, even though

accessibility issues caused extra stress. Moreover, the COVID-19 pandemic has led the programme to use alternative ways of testing such as individualized take home exams or pre-recorded videos instead of in-class presentations. Several of these alternative assignments have been kept after the pandemic.

Furthermore, the panel notices that due to the number of students and the high workload of faculty, the individual assessment and feedback to students is limited. Nonetheless, the programme remains within the TiSEM-wide framework that there should be a minimum of 60% individual work and maximum 40% of group work. According to the programme team, the Academic Director is aware of both the staff workload and the student expectations and monitors via the student sounding boards that examiners do provide individualised feedback to students.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that assessors use an appropriate evaluation form to report on their assessment of International Management theses: according to the thesis experts, the evaluation criteria are relevant and described in detail; the evaluation form invites assessors to score each criterion and motivate their appreciation in writing; both supervisor and co-reader complete a separate form; and the calculation of the final grade is explained on the form. Moreover, there is a clear link between the structure of the theses and the evaluation criteria. The evaluation form provides rating scales per criterion: the experts reported that evaluators have the tendency to tick multiple scores, which leaves room for interpretation / subjectivity in the final score.

Overlooking the entire sample, the experts reported that all evaluation forms in the sample contained feedback on all criteria. In most cases, this feedback was insightful as it provided a specific motivation for the student grade on the individual criteria which in turn reflected the different components of the thesis. In a few cases, the assessors gave standard comments that could be related to any thesis of the same quality. The experts recognise that it is quite intensive to give detailed and thesis-specific feedback on all criteria. While further standardisation of the feedback document may be warranted, it would also be good if both assessors would give at least one line of explanation in a clear, specific and objective way on each criterion they mark.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this International Management programme. The panel welcomes the careful attention of the programme team with regard to individualised assessment and feedback in times of increasing staff workload.

Furthermore, the panel endorses the findings of the thesis committee that the quality of thesis assessment is good. Compared to the previous accreditation visit, the evaluation forms are completed in a more insightful way.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel's general findings on the thesis quality and on the performance of graduates are valid for this programme.

The final project consists of a master thesis which accounts for 18 ECTS. Students can choose their own topic, which can be taken from any of the broad set of courses, provided there should always be an international dimension to the research.

As part of the external assessment of this programme, a team of experts on the thesis committee reviewed a sample of 15 International Management theses. The thesis selection was based on a list featuring 124 students who had successfully submitted their thesis between September 2019 and August 2021. Ensuring a fair distribution among the scoring categories (29% - 67% - 4%) in the sample, the experts reviewed 5 low quality, 9 average quality and 1 high quality theses.

According to the experts, each of the fifteen theses was clearly of sufficient quality to pass; hence, none of the reports was submitted to the thesis committee for a second opinion. In terms of grading, the experts agreed to thirteen out of fifteen final scores given by the respective assessors. In one of the other cases, the expert agreed to the overall score but found the assessment on some criteria too optimistic; in the other case, the overall score was again understandable but the overall quality of the thesis and the level of scoring on several criteria deserved a higher final score.

Overlooking the entire sample, the experts reported that all theses had a good and consistent structure. The theses contained an explicit research question with more specific sub-questions, and a research aim. Both quantitative and qualitative studies showed a good base level for data collection and analysis. The level of awareness on the importance of validity and reliability was good; all theses pay attention to this. Where theses varied in complexity, both conceptually and methodologically, complex theses were graded higher than less complex theses, and deservedly so.

Further to what was expressed by the assessors in the evaluation forms, the experts noted that it was difficult for students to present a good discussion at the end of the thesis. While this is likely due to a lack of time at the end of the process, the experts also believed it is an intrinsically difficult part for students; only in really good quality theses, the discussion part was well executed. Moreover, one expert noted that not all theses were particularly relevant for an International Management programme. According to the programme team, this finding is correct because the aforementioned requirement of the international component has only been enforced recently.

The PRT was informed that the employment rate of International Management graduates is very good. In fact, many students found a job before they received their diploma and 80% of the graduates did so within three months after their graduation. Most students end up at large multinational companies like Rabobank, Unilever, E&Y, Philips and Shell. According to the programme team, the mandatory Integrated Job Market Workshop has had a considerable impact on the performance of the graduates on the job market.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that International Management graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the theses is good. Furthermore, the PRT considers that International Management graduates are well prepared during their studies for the labour market and have the right end level qualifications to pursue a relevant position on the job market that is commensurate with the level and substance of their master programme.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this International Management programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this master programme International Management at the Tilburg School of Economics and Management of Tilburg University.**

14. MSc Marketing Analytics

The master Marketing Analytics (MA) is a one-year full-time 60 ECTS programme taught in English. It aims to provide students with the expertise needed to pursue a career as a trained marketing analyst and become responsible and independent marketing professionals.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention of these programmes to the developments in their respective professional domains are all valid for this particular master programme.

The panel gathers from the materials that MA students obtain both knowledge and skills to translate a concrete marketing problem in an academically relevant research problem. Keeping up to date with recent developments in the field of big data and online media, the MA programme increasingly focuses on the management and predictive power of high-volume, high-velocity data such as the data derived from social media platforms.

There are several institutions in the Netherlands and abroad that offer similar programmes. While there are many similarities in objectives and curriculum, the MA programme in Tilburg offers a broader package in marketing analytics related electives, which allows students to specialise in particular MA techniques.

The PRT has studied the intended learning outcomes, which have been adjusted and updated since the previous accreditation. They are aligned with national and international benchmarks such as the definition of marketing analytics by the American Marketing Association. The new learning outcomes were formulated following feedback from the professional field on the demands of the current job market. Moreover, the panel notices that the current set of learning outcomes is not only aligned with the structure of the Dutch Qualification Framework (NLQF) at master level 7 but also continues to reflect the internationally accepted Dublin Descriptors. The PRT establishes that the learning outcomes are concrete in terms of content (marketing analytics), level (master) and orientation (academic). Moreover, they reflect the current vision and strategic values of the university and the school.

Having read the self-evaluation reports of both Marketing Analytics and Marketing Management (MM) programmes and in line with its general inquiry into the programme portfolio of the school, the panel wondered to what extent both programmes differed sufficiently to be offered separately. According to the programme team, the difference lays in the number and share of programme specific courses in the curriculum: MA students follow 36 ECTS of dedicated and 6 ECTS of MM-related courses, while MM students take 24 ECTS of dedicated and 6 or 12 ECTS of MA-related courses. Over the years, the growing number of students has allowed to develop and offer new or adjusted compulsory and elective courses,

which focus on one of the two disciplines and are open only to students of that particular programme.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the revised set of learning outcomes reflect the content, level and orientation of this MSc programme in Marketing Analytics. The panel thinks that the revision exercise has been successful because the learning outcomes address all competencies, reflect the key values of the university and the school, and comply with both international standards and the requirements of the professional field. Further to the written clarifications and the discussions on site, the PRT considers that there is a clear rationale for offering a dedicated master programme Marketing Analytics at TiSEM.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The PRT's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the programme is currently in transition with courses being removed, renamed and/or adjusted in content to keep up with recent developments in the academic and professional field. Following the increase in student numbers, the MA programme is enlarging its course portfolio and is offering courses that are specifically targeted and only open for MA students. This revision started in 2020-2021 and is likely to be completed in 2022-2023.

The curriculum in the academic year 2021-2022 consists of six compulsory courses (30 ECTS), two restricted choice electives (12 ECTS) and a master thesis (18 ECTS). The MA programme is spread over four units and students can enrol both in Fall and in Spring. It is offered in English because both the academic and professional field of marketing analytics is internationally oriented and it is important for students to learn to function in an international environment where literature and communication is mainly in English. Students appreciate this international dimension of the programme, which they also see reflected in the composition of the cohorts and the teaching staff. In line with its overall appreciation of the choices TiSEM makes regarding the language of instruction in its degree programmes, the PRT supports the motivation to offer this MA programme in English.

MA and MM students produced their written contribution together. As a point of attention, students mentioned the international dimension of the course contents, which are perceived as too Dutch-oriented for the moment. It was not clear from the materials whether this criticism

applied to the MA, MM or both programmes. According to the programme team, this flaw comes as a surprise because the MA programme is specifically and deliberately oriented as an international programme. Courses and learning objectives build upon the academic marketing discipline and are designed according to international standards. The big majority of examples and business cases are international. When Dutch cases are used, these are clear and comprehensively explained to an international audience. Given that MA graduates will likely end up in an international work environment, the programme team indicated that more can be done to mimic this environment in the team composition for group assignments.

Over the past six years the yearly intake of MA students has increased enormously from 25 (in 2014-2015) to 126 students (in 2020-2021). The total number of MA students grew from 107 (in 2018-2019) to 172 (in 2021-2022). According to the programme team, the need for (marketing) analytical skills is growing and the job perspectives for MA students are very positive. Moreover, the introduction of a dedicated course on Business Analytics in the third year of the IBA programme has raised the interest of students in MA. An average MA cohort consists of students with a bachelor's degree from TiSEM (45%), with a relevant degree from another Dutch or international university (30%), and with a pre-master programme (25%). About a quarter of the students are international.

In terms of study progress, hardly any 'regular' MA student drops out meaning that there was some drop-out with students who registered also for this MA programme in addition to another programme, very often MM. Over the years, the share of students finishing the programme within the nominal duration of one year has increased to almost 50%, while almost 80% does so in two years. According to the programme team, the stricter handling of the master thesis trajectory has been an important factor in this development. The panel was also informed that a significant share of MA students postpone their graduation on purpose in order to perform internships or because they are enrolled in two master programmes.

The self-evaluation contains an overview of the MA courses and their respective coordinators and lecturers. The panel notices that academic staff consists predominantly of professors who are active in the research domain they teach in the course. Some faculty have part-time appointments and combine this with work in the practice of MA. About a third of the staff is female and more than half is international.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the Marketing Analytics courses connect neatly to the overall programme objectives. Despite the fact that the programme is in transition, the courses altogether do address the different learning outcomes. Hence, the panel considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable Marketing Analytics students to reach the intended learning outcomes.

Moreover, the growth in student numbers allows the programme to develop and deliver a curriculum that is more tailored to the specific domain of Marketing Analytics. In this regard,

the curriculum developments provide an additional justification for TiSEM's decision to offer a dedicated master programme Marketing Analytics.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this master programme.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment forms are varied, that individual Marketing Analytics courses tend to use different forms of assessment and that these tests benefit the course learning goals and contribute to the overall programme learning outcomes.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that assessors use an appropriate evaluation form to report on their assessment of the MA theses: according to the thesis expert, the evaluation criteria are relevant and described in detail; the evaluation form invites assessors to score each criterion and motivate their appreciation in writing; both supervisor and co-reader complete a separate form; and the calculation of the final grade is explained on the form.

Thesis assessments take into account the quality of problem assessment, the added value of the research question, the depth of literature review, the clarity and logic of argumentation and hypotheses building, the correctness of research method, data treatment and depth of analyses, the critical nature of discussion, the structural aspects and language. According to the expert, the evaluation seems to focus on both responsibility and independence as well as the ability to describe, clearly explain and apply marketing theory. Theses that add to the theoretical and conceptual understanding of the subject get higher grades; the quality and depth of discussion (e.g. whether the conclusions transcend the findings) are used as a critical evaluation point. Depending on the thesis topic, an innovative or thorough data analysis method can also result in a very good score. In all cases, clarity, language and structure are valued.

Overlooking the entire sample, the expert reported that all evaluation forms were completed in a satisfactory way. The feedback notes gave a clear idea why a particular score was given; the scores on individual criteria were in line with these notes and translated in the overall assessment. The expert noted with satisfaction that the assessment of the two evaluators was not always in line, which indicates that the second co-reader did not blindly follow the evaluation of the first supervisor. Nonetheless, the expert also noted that there was some

variation in the depth of the notes as some evaluators provided clear and detailed explanations while others stuck to rather abstract generic formulations.

As points of attention for the future, the expert reported that there was some variance in grading in the sense that some evaluators seemed to be more strict on assessing e.g. the academic relevance of the topic while others focussed in their evaluation on the rationale and motivation for using a particular method, the clarity of the motivation of problem statement, critical reflection in the discussion or the depth of data analyses. Furthermore, it was not clear from the evaluation form whether and how students were evaluated on the management summary. According to the expert, writing a clear and concise management summary is a valuable skill which could be evaluated as an extra criterion. While student independence in designing, conducting and reporting their research constituted a separate criterion, it was not always clear from the evaluation forms whether this was also a defining factor in the final grading. According to the programme team, the management summary is not separately assessed, but there is room for taking this on board in the Style and Structure criterion where the overall consistency, clarity, and readability of the thesis is assessed. Furthermore, the supervisor assesses the Independence criterion: based on the extent to which students work independently or not, the final grade can be moved up- or downwards.

Linking assessment and scoring, the expert reported that the grading policy seemed rather strict: a scientifically grounded, clear and justified (well-motivated) problem statement and research together with critical thinking leads up to a good score of 8 or 8.5. It seems almost impossible to receive a higher grade. According to the programme team, such score is considered to be very good and even higher grades are exceptional but not impossible. Every year around 4% of the students obtain an excellent score of 9.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this Marketing Analytics programme.

In addition the panel endorses the findings of the thesis committee that the quality of thesis assessment is good. Compared to the previous accreditation visit, the evaluation forms are completed in a more insightful way.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel's general findings on thesis quality and graduate performance are valid for this programme.

The final project consists of a master thesis, which accounts for 18 ECTS. Students can choose to investigate an actual problem in a company or a business problem defined by the supervisor. Over the past few years, more and more students choose for the latter.

As part of the external assessment of this programme, an expert on the thesis committee reviewed a sample of 15 MA theses. The thesis selection was based on a list featuring 77 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (26% - 66% - 8%) in the sample, the expert reviewed 4 low quality, 9 average quality and 2 high quality theses that had been assessed by a variety of supervisors and second readers.

According to the expert, each of the fifteen theses was clearly of sufficient quality to pass; hence none of the reports was submitted to the thesis committee for a second opinion. In terms of grading, the expert agreed to all final scores given by the respective assessors. Therefore, the ranking of the theses in the sample was adequate: theses with a higher score were indeed of better quality than those receiving a lower grade, while theses with an identical grade were of comparable quality.

Overlooking the entire sample, the expert reported that the quality of the thesis sample was high: they were well-defined and contained relevant research questions that were related to the subject of the master programme and were discussed in the appropriate academic and practical context. All theses were produced as an academic paper, which entailed that literature reviews were generally concise and leading fairly quickly to hypotheses building and to applying contemporary marketing theories. The research methodology was clearly described and in general, the choice of specific research methods was properly explained and justified. In the discussion of the results, students referred back to theory findings and research material. All theses included a more or less critical reflection of the theoretical approach, methodology and results section. In general, the language quality was high and structural elements sufficed.

As points for attention in the future, the expert mentioned that not every thesis paid sufficient attention to the relevance of the topic for business. Moreover, there was relatively limited attention to possible ethical considerations in the theses.

The PRT was informed that the employment opportunities of MA graduates is excellent: around 40% of the students have a job when they receive their diplomas, while all graduates are employed within six months after graduation. Hardly any MA student pursues an academic career upon graduation.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that Marketing Analytics graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the MA thesis is good. Furthermore, the PRT considers that Marketing Analytics graduates have the right end level qualifications to pursue a relevant position on the labour market that is commensurate with the level and substance of their master programme.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this Marketing Analytics programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this master programme Marketing Analytics at the Tilburg School of Economics and Management of Tilburg University.**

15. MSc Marketing Management

The master Marketing Management (MM) is a one-year full-time 60 ECTS programme that is offered in English and Dutch. It is a specialised programme oriented towards the practice of a marketing manager.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention of these programmes to the developments in their respective professional domains are all valid for this particular master programme.

The panel gathers from the materials that the programme builds further on the knowledge students have obtained in their previous education in the fields of business administration, mathematics and statistics.

There are several institutions in the Netherlands and abroad that offer similar programmes. While there are many similarities in objectives and curriculum, the MM programme in Tilburg offers a wider variety in elective courses, which allows students to catch up with recent trends in the area of social media and big data research.

The PRT has studied the intended learning outcomes, which have been adjusted and updated since the previous accreditation. They are aligned with national and international benchmarks such as the definition of marketing management by the American Marketing Association. The new learning outcomes were formulated following feedback from the professional field on the demands of the current job market. Moreover, the panel notices that the current set of learning outcomes is not only aligned with the structure of the Dutch Qualification Framework (NLQF) at master level 7 but also continues to reflect the internationally accepted Dublin Descriptors. The PRT establishes that the learning outcomes are concrete in terms of content (marketing management), level (master) and orientation (academic). Moreover, they reflect the current vision and strategic values of the university and the school.

Having read the self-evaluation reports of both Marketing Analytics and Marketing Management (MM) programmes and in line with its general inquiry into the programme portfolio of the school, the panel wondered to what extent both programmes differed sufficiently to be offered separately. According to the programme team, the difference lays in the number and share of programme specific courses in the curriculum: MA students follow 36 ECTS of dedicated and 6 ECTS of MM-related courses, while MM students take 24 ECTS of dedicated and 6 or 12 ECTS of MA-related courses. Over the years, the growing number of students has allowed to develop and offer new or adjusted compulsory and elective courses, which focus on one of the two disciplines and are open only to students of that particular programme.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the revised set of learning outcomes reflect the content, level and orientation of this MSc programme in Marketing Management. The panel thinks that the revision exercise has been successful because the learning outcomes address all competencies, reflect the key values of the university and the school, and comply with both international standards and the requirements of the professional field. Further to the written clarifications and the discussions on site, the PRT considers that there is a clear rationale for offering a dedicated master programme Marketing Management at TiSEM.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The PRT's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the programme is well thought-through. The curriculum consists of five compulsory courses (30 ECTS), two restricted choice electives (12 ECTS) and a master thesis (18 ECTS). The MM programme is spread over four units and students can enrol both in Fall and in Spring. Most courses combine large-scale lectures (about 200 students) with small-scale tutorials (around 40 students). Students indicated in their contribution that the courses cover in a comprehensive way the different facets of the MM discipline. The compulsory courses complement each other and lay a strong foundation for students to further build on their marketing expertise.

The MM programme is offered in English because both the academic and professional field of marketing management is internationally oriented and it is important for students to learn to function in an international environment where literature and communication is mainly in English. The programme offers Dutch students the opportunity to write the assignments of the compulsory courses and the MSc thesis in Dutch, which in these cases are supervised and graded by native Dutch faculty members. In line with its overall appreciation of the choices TiSEM makes regarding the language of instruction in its degree programmes, the PRT supports the motivation to offer this MA programme in English.

MA and MM students produced their written contribution together. As a point of attention, students mentioned the international dimension of the course contents, which are perceived as too Dutch-oriented for the moment. It was not clear from the materials whether this criticism applied to the MA, MM or both programmes.

Over the past five years the average intake was around 230 students, with a one-time dip of 180 students. The total number of MM students has been slightly decreasing from 358 students (in 2018-2019) to 327 students (in 2021-2022). In 2020-2021, the MM cohort consisted of students with a bachelor's degree from TiSEM (27%), with a relevant degree from another Dutch or international university (33%), and with a pre-master programme (40%). Over the years the requirements for the pre-master programme have been sharpened: the introduction of a mathematics course has reduced the number of students completing the pre-master programme successfully and increased the entry level of the average MM student. Around 16% of the MM students are non-Dutch.

In terms of study progress, on average 200 MM students graduate per year. Only a limited number of students drop out. An increasing share (42%) is finishing the programme within the nominal duration of one year, while 62% does so in 18 months and almost all students finish the programme in two years. According to the programme team, the stricter handling of the master thesis trajectory has been an important factor in this development. The panel was also informed that a significant share of MM students postpone their graduation on purpose in order to perform internships or because they are enrolled in two master programmes.

The self-evaluation contains an overview of the MM courses and their respective coordinators and lecturers. The panel notices that academic staff consists predominantly of professors who are active in the research domain they teach in the course. Some faculty have part-time appointments and combine this with work in the practice of MM. About a third of the staff is female and 60% is international.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the Marketing Management courses connect neatly to the overall programme objectives. The panel considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable Marketing Management students to reach the intended learning outcomes. Moreover, the growth in MA and MM student numbers allows the MM programme to develop and deliver a curriculum that is more tailored to the specific domain of Marketing Management. In this regard, the curriculum developments provide an additional justification for TiSEM's decision to offer a dedicated master programme Marketing Management.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this master programme.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment forms are varied, that individual Marketing Management courses tend to use different forms of assessment and that these tests benefit the course learning goals and contribute to the overall programme learning outcomes. The panel notices that there is a good mixture in the programme between individual and team assignments and most courses apply a self-assessment and peer assessment form to avoid free-riding and assess the individual contributions of students in team assignments. While individual courses are currently using their own forms, the university is mapping the existing practices with the intention to develop one standard digitalised form for self-and peer assessment.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that assessors are using an appropriate evaluation form to report on their assessment of MM theses: according to the thesis expert, the evaluation criteria are relevant and described in detail; the evaluation form invites assessors to score each criterion and motivate their appreciation in writing; both supervisor and co-reader complete a separate form; and the calculation of the final grade is explained on the form.

Overlooking the entire sample, the expert reported that in thirteen out of fifteen cases the evaluation forms were completed in a transparent and insightful way. In the two other cases at least one of the assessors was not sufficiently specific in motivating several scores on individual criteria. In this regard, the expert mentioned that it is important that - irrespective of the low, average of high score on each criterion - assessors do provide a motivation for this score.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this Marketing Management programme.

In addition the panel endorses the findings of the thesis committee that the quality of thesis assessment is good. Compared to the previous accreditation visit, the evaluation forms are completed in a more insightful way.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel's general findings on thesis quality and graduate performance are valid for this master programme.

The final project consists of a master thesis, which accounts for 18 ECTS. Students can choose to investigate an actual problem in a company or a business problem defined by the supervisor. Over the past few years, more and more students choose for the latter.

As part of the external assessment of this programme, an expert on the thesis committee reviewed a sample of 15 MM theses. The thesis selection was based on a list featuring 131 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (37% - 62% - 1%) in the sample, the expert reviewed 5 low quality, 9 average quality and 1 high quality theses that had been assessed by a variety of supervisors and second readers.

According to the expert, each of the fifteen theses was clearly of sufficient quality to pass; hence none of the reports was submitted to the thesis committee for a second opinion. In terms of grading, the expert agreed to all final scores given by the respective assessors. Therefore, the ranking of the theses in the sample was adequate: theses with a higher score were indeed of better quality than those receiving a lower grade, while theses with an identical grade were of comparable quality.

Overlooking the entire sample, the expert reported that the quality of the master theses was definitely good and that the grading is in line with the quality. The theses covered relevant topics, contained clear research questions and showed relevance for theory and practice. On average, the use of theory was good and hypotheses were clearly founded in the literature. The experiments students set up were thorough and so was their analysis of the data. Theses with a lower score tended to fall short in their conclusions and recommendations.

As points for attention in the future, the expert mentioned that most theses follow an experimental design while other designs could also be useful. Moreover, theses tend to be quite lengthy, while a thesis that has the format of a scientific article could also be relevant. The programme team agreed that other designs such as a survey, conjoint or archival study would be useful as well and that students can – but mostly do not - opt for such approach. When posting supervisor defined topics, students usually choose for a topic where they can do an experiment; topics that require the use of archival data tend to be least popular. Moreover, the programme team indicated that there is a maximum length of the thesis of 35 pages and student indeed tend to fill all these pages. Writing the thesis in the format of a scientific article would be possible, provided it meets all assessment criteria: clear introduction of the problem, critical literature review, sound method and analysis, and a critical discussion of the results.

The PRT was informed that the employment opportunities of MM graduates is excellent: around 30% of the students have a job when they receive their diplomas, while the average time to find a job is less than three months after graduation.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that Marketing Management graduates achieve the programme learning outcomes.

The panel endorses the findings of the thesis committee that the quality of the MM theses is very good. Furthermore, the PRT considers that Marketing Management graduates have the right end level qualifications to pursue a relevant position on the labour market that is commensurate with the level and substance of their master programme.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this Marketing Management programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this master programme Marketing Management at the Tilburg School of Economics and Management of Tilburg University.**

16. MSc Quantitative Finance and Actuarial Science

The master Quantitative Finance and Actuarial Science (QFAS) is a one-year full-time 60 ECTS programme taught in English. It focuses on the interplay between financial and actuarial (insurance) risks and provides advanced level education on applying and developing quantitative models and techniques for risk measurement and management in financial institutions. QFAS is one of three master programmes in the domain of quantitative economics at TiSEM.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention of these programmes to the developments in their respective professional domains are all valid for this particular master programme.

The panel gathers from the materials that for a long time already, TiSEM is offering three separate master programmes in quantitative economics: QFAS, Business Analytics and Operations Research (BAOR) and Econometrics and Mathematical Economics (EME). Since the previous accreditation, each programme received a dedicated (instead of a common/shared) Academic Director, which in turn allowed the respective programmes to get a more distinctive profile. There have always been very close structural and informal contacts between the programme teams, the teaching staff and the respective student cohorts. In view of this accreditation visit, the students produced one common contribution. While BAOR and EME are similar in the sense that they also provide advanced knowledge and skills on quantitative methods, they do not focus on applying such methods within the field of quantitative finance and actuarial science and also do not focus on quantitative methods and models that are specific to the QFAS field.

QFAS builds further on bachelor level knowledge and skills in mathematics, probability theory, statistics and econometrics. This background is then used to study financial and insurance risks and their connection to understand state-of-the-art risk measurement and management. Moreover, students are trained in effective communication, written and oral presentation, and to behave as responsible and independent professionals.

There are a few comparable programmes in the Netherlands and abroad: most institutions offer QFAS as a specialisation track within a broader master programme. All benchmark degrees focus on building advanced knowledge and skills in order to solve complex risk measurement and management by using and developing advanced mathematical, probabilistic and statistical techniques. QFAS in Tilburg and the Actuarial Science and Mathematical Finance programme at the University of Amsterdam focus on both domains: while historically each field had its own technique, the fields have converged both in research and in practice.

The PRT has studied the set of learning outcomes, which have been slightly reformulated since the previous accreditation. The current learning outcomes are not only aligned with the structure of the Dutch Qualification Framework (NLQF) at master level 7 but also continue to reflect the internationally accepted Dublin Descriptors. The panel notices that the formulation of the knowledge domains is quite abstract: this is a deliberate choice of the programme to mention only the sub-fields of the QFAS domain, not the topics in this sub-fields which are treated in the courses. Despite this abstraction, the PRT thinks that the learning outcomes are sufficiently concrete in terms of content (QFAS), level (master) and orientation (academic). Moreover, they are specific to the field of QFAS and distinct from both BAOR and EME across all NLQF categories.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the current set of learning outcomes reflect the content, level and orientation of this QFAS programme. The panel appreciates the specific positioning of the programme within TiSEM and towards national and international benchmarks. The learning outcomes constitute an adequate translation of the rationale of this particular programme and are formulated in a specific way that clearly distinguishes this QFAS programme from other quant programmes at TiSEM.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The PRT's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the programme is well thought-through. The curriculum consists of four core courses (24 ECTS), three electives (18 ECTS) and a master thesis (18 ECTS). The QFAS programme is spread over four units and students can enrol both in Fall and in Spring. Since the previous accreditation visit, the curriculum has been adjusted with some new courses, renamed courses and renewed course contents. The program offers students the possibility to design, via the electives, a personal study programme, which they share with the education coordinator. Moreover, students who wish to do so can tailor their programme towards a more theoretical and a more applied profile, which prepare for careers in academia and industry. This profiling starts in the courses and is very explicit in the master thesis (see standard 4).

It is a conscious choice of TiSEM and the programme team to offer the QFAS programme in English because the labour market is highly international. By doing so, the programme is attracting international students and part of the teaching staff is non-Dutch. In line with its

overall appreciation of the choices TiSEM makes regarding the language of instruction in its degree programmes, the PRT supports the motivation of the team to offer this programme in English.

Students indicated in their joint contribution on BAOR, EME and QFAS that they appreciate the curriculum content because it prepares for the job market in the different fields of econometrics and through the broad offer of electives allows sufficient freedom to tailor the study programme to their individual liking. Moreover, TiSEM provides good information on the differences between the three quantitative programmes, as well as on the opportunities to take elective courses from these programmes or to combine two programmes. As cohorts are small, lecturers can provide more personal guidance in class. Finally, students appreciate the international orientation of the programme and the (geographical) diversity of both students and staff.

For quite some time the yearly intake has been stable between 30 and 40 students, featuring roughly 20% of international students. In 2021-2022, the total number of QFAS students amounts to 69. Only students with a solid quantitative background in mathematics, probability theory and statistics, as well as a proficient level of English are admitted. While QFAS attracts attention from international students with an adequate mathematical background, they often lack sufficient prior knowledge in quantitative finance and actuarial science. Students appreciate the refresher course Quantitative Finance Basics.

In terms of study progression, hardly any student drops out. Most students do not finish the programme in the nominal duration of one year but do so in 18 months (29%) or two years (71%). In order to improve the success rate, the thesis trajectory has been sharpened and now includes a maximum duration of six months. The panel notices that in many cases the delay is not caused structurally by the feasibility of the study load, but because students combine the thesis with an internship or follow two master programmes.

The self-evaluation contains an overview of the QFAS courses and their respective coordinators and lecturers. The staff team involved in the core programme consists of 9 faculty, of which two are international. The staff consists predominantly of professors who are active in the research areas in which they teach. Some faculty have a strong link with practice. Students indicated that the staff is knowledgeable and offers an interesting combination of theory and practice in the courses. Moreover, students choose for quantitative programmes at Tilburg because of the small scale of the programme and the attention of the professors to the individual students.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the QFAS courses connect neatly to the overall programme objectives. The panel welcomes the attention of the programme to keep its curriculum contents up to date and considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable QFAS students to reach the intended learning outcomes. Furthermore, the PRT endorses

the appreciation of the students for the link between theory and practice, for the way in which the curriculum prepares for different career profiles, and for the personalised attention of staff for students.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this master programme.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment forms are varied, that individual QFAS courses tend to use different forms of assessment and that these tests befit the course learning goals and contribute to the overall programme learning outcomes. The panel notices that the relatively high staff-to-student ratio of this programme helps to have a valid and reliable assessment plan and allows to provide students with personalised feedback on assignments and exams. While time consuming, it is also very valuable to the student learning path.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that assessors use an appropriate evaluation form to report on their assessment of the QFAS theses: according to the thesis expert, the evaluation criteria are varied, relevant and described in detail; the evaluation form invites assessors to score each criterion and motivate their appreciation in writing; both supervisor and co-reader complete a separate form; and the calculation of the final grade is explained on the form.

The expert reported that in fourteen out of fifteen cases, the evaluation form was completed in an informative way. In many cases, the second readers seemed to be sufficiently independent in both grading and comments. However, the expert did point to a tendency in the evaluation form that assessors motivated more extensively the lower grades, while the higher grades often got brief and uninformative feedback such as 'very good'. This was precisely the case in single form the expert did not find sufficiently informative. Moreover, a better motivation of the high grades in the (other) thesis the expert thought was graded too generously, would have helped in validating the final score.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this QFAS programme. The panel

welcomes the efforts of the team to provide students with personalised and insightful feedback on course assessments.

In addition the panel endorses the findings of the thesis committee that the quality of thesis assessment is good. Compared to the previous accreditation visit, the evaluation forms are completed in a more insightful way.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel's general findings on thesis quality and graduate performance are valid for this master programme.

The final project consists of a master thesis that amounts to 18 ECTS. There are two formats: students can either opt for theoretical research under the supervision of a faculty member, or to combine the thesis with a company internship. The latter enables students to combine academic research with working on a real-life problem under the joint supervision of a faculty member and a company supervisor. Most students choose the latter option.

As part of the external assessment of this programme, an expert on the thesis committee reviewed a sample of 15 QFAS theses. The thesis selection was based on a list featuring 30 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (0% - 70% - 30%) in the sample, the expert reviewed no low quality, 10 average quality and 5 high quality theses that had been assessed by a variety of supervisors and second readers.

According to the expert, each of the fifteen theses was clearly of sufficient quality to pass; hence, none of the reports was submitted to the thesis committee for a second opinion. In terms of grading, the expert agreed to fourteen out of fifteen final scores given by the respective assessors. The grading of the theses properly reflected their quality; good quality theses got consistently high grades, while theses of average quality got lower scores. In one case, the expert thought that the score (9) was too high for the intrinsic qualities of the thesis and the level of understanding the student demonstrated on the topic.

As a point for attention, the expert reported that the derivations and proofs in several theses regarding stochastic differential equations were treated in a non-rigorous way even for theses with very high grades. The results were not wrong, but the derivations were based on "Euler discretisations". While such "approximately correct" derivations may be acceptable for students in economics or finance, a higher level of rigour is expected for master theses in Quantitative Finance and Actuarial Science.

The PRT was informed that QFAS graduates have excellent career opportunities. Students easily find companies where they can combine an internship with master thesis work – even during the pandemic – and in many cases this internship leads to a job offer. Several students find a job before they graduate and in a few cases, these students did not finish the programme for that reason. Company supervisors tend to be enthusiastic about the technical and practical skills of the QFAS students. While most graduates pursue a career with consultancy firms and insurance companies, some remained in academia and started a PhD trajectory. Moreover, some QFAS graduates enrol on the Executive Master in Actuarial Science at the University of Amsterdam to become a certified actuary, recognised by the Dutch Actuarial Institute.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that QFAS graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the QFAS theses is good. Furthermore, the PRT considers that QFAS graduates have the right end level qualifications to pursue a relevant position on the labour market that is commensurate with the level and substance of their master programme. They also have the appropriate competences to pursue an academic career or enrol for the recognition as certified actuary.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this QFAS programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this master programme Quantitative Finance and Actuarial Science at the Tilburg School of Economics and Management of Tilburg University.**

17. MSc Strategic Management

The master Strategic Management (SM) is a one-year full-time 60 ECTS programme taught in English. It offers both a number of theoretical lenses to analyse strategic issues and relevant skills to function in business environments at different levels. The programme does not prepare for a specific job but for a career in management by providing students problem-solving skills to find their own way, keep asking questions and develop professionally.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention of these programmes to the developments in their respective professional domains are all valid for this particular master programme.

The panel gathers from the materials that the programme offers two tracks, Entrepreneurship and Consultancy. These specialisations build further on a common core of generic theories and concepts of strategic management which are mainly discussed in the context of big multinational corporate firms. These specialisation tracks set the SM programme at Tilburg apart from similar national and international programmes. While there are differences in course contents, the objectives of other Dutch programmes and programme tracks are quite similar. International programmes often have a multidisciplinary approach and a closer connection to the professional field, e.g. through a compulsory internship period or business projects. The benchmark shows that a bigger role of quantitative data and data analytical content could be explored in the future.

The PRT has studied the intended learning outcomes, which have been adjusted and updated since the previous accreditation. The current set of learning outcomes is not only aligned with the structure of the Dutch Qualification Framework (NLQF) at master level 7 but also continues to reflect the internationally accepted Dublin Descriptors. The PRT establishes that the learning outcomes are concrete in terms of content (strategic management), level (master) and orientation (academic). Moreover, they reflect the current vision and strategic values of the university and the school. The specialisation tracks have their own distinctive learning outcome that refers to the methods and models used to solve problems.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the current set of learning outcomes reflect the content, level and orientation of this MSc programme in Strategic Management. The panel thinks that the revision exercise has been successful because the learning outcomes address all competencies, refer to the two specialisations, and reflect the key values of the university and the school.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment*Findings*

The PRT's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the programme is well thought-through. The curriculum consists of five core courses (30 ECTS), two mandatory track courses (12 ECTS) and a master thesis (18 ECTS). The SM programme is spread over four units and students can enrol both in Fall and in Spring. Each track has a specific starting date: students enrolling September have to take the Consultancy track, while the Entrepreneurship track is linked to the February intake. Students mentioned in their contribution that they highly appreciate the course contents, which constitute an excellent preparation for a successful career in the field. This praise also extends to the set-up with two specialisation tracks which guarantees an even higher level of training in one particular career path. Moreover, the business cases during the tutorials are a good way to learn how to apply theory to the reality of companies.

As a point for improvement, students mentioned during the site visit that their expectations with regard to the track Entrepreneurship were not fully met. In fact, students thought the programme / course contents would prepare them for a life as entrepreneurs and provide them the knowledge and skills to develop a start-up. The panel endorses this comment and suggests the programme team to include relevant elements in the courses, e.g. financial strategy, to live up to the – in the eyes of the PRT reasonable - student expectations that the Entrepreneurship track of a master programme in Strategic Management should indeed prepare for a career as entrepreneurs.

The SM programme is taught in English: this allows to target both Dutch and international students who are taught by a multinational team of teaching staff who are using research articles and business cases that are available in English. Moreover, an English language programme prepares students for the increasingly international labour market. In line with its overall appreciation of the choices TiSEM makes regarding the language of instruction in its degree programmes, the PRT supports the motivation to offer this SM programme in English.

Over the past five years the intake of SM students has increased from 164 to 238. The total number of students went up from 327 to 397. The share of international students is fluctuating between 15% and 20%. Traditionally the programme attracts many students (between 40% and 60%) with a bachelor's degree from a university of applied sciences who enrol upon successfully completing a pre-master programme. According to the students, the pre-master courses provide an extensive and relevant preparation for the MSc programme. Nonetheless,

the panel gathers from the materials that some students feel more comfortable with the academic challenges of the programme while others are more familiar with the skills requirements. Moreover, the growing number of students has also increased the range of student behaviour and talent. While talented students bring intellectual curiosity and ambition, others display a limitation in their capabilities and/or work attitude. The continuum is growing and so is the gap between student and staff expectations in terms of study commitment. In terms of study progress, the drop-out rate is fairly low (6%) while the share of students who finish the programme successfully within the nominal period of one year is around 60% while 80% does so in 18 months and 95% finishes the programme within two years.

The self-evaluation contains an overview of the SM courses and their respective coordinators and lecturers. All 21 staff in the programme are employed by the Department of Management at TiSEM. The teaching team is very international with 16 lecturers being non-Dutch. The panel notices that the increase in student numbers was not followed by an increase in staff. According to the students, the teaching staff is highly knowledgeable and available. They appreciate the international composition of the staff which allows to explore the management field from different perspectives. Students also indicated explicitly that the Academic Director and Education Coordinator are very approachable and attentive to student feedback on the curriculum.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the Strategic Management courses connect neatly to the overall programme objectives. The panel considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable Strategic Management students to reach the intended learning outcomes. In this regard the PRT endorses the appreciation of the students for the quality of the courses, the competence of the teaching staff and the commitment of the programme team.

Acknowledging the challenges of a growing student intake in combination with stable (and thus a declining ratio of) staffing, the panel suggests that the programme team and the school management take immediate action to mitigate the effects of this situation in the short run and solve the situation in the long run. Furthermore, the panel advises the programme team to revisit the course contents of the Entrepreneurship track and include the necessary elements to prepare students for a career as entrepreneurs.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this master programme.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment forms are varied, that individual Strategic Management courses tend to use different forms of assessment and that these tests benefit the course learning goals and contribute to the overall programme learning outcomes. The panel notices that the aforementioned imbalance between the growth in student and staff members has led to a situation where staff cannot provide as much timely and individual formative and summative feedback to students as they would wish. Currently the grading work becomes a bottleneck in the learning process. The panel endorses the statement in the self-evaluation report that the quality of assessment is under threat if the programme grows further and no substantial change in resource allocation is forthcoming.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that assessors use an appropriate evaluation form to report on their assessment of the SM theses: according to the thesis expert, the evaluation criteria are relevant and described in detail; the evaluation form invites assessors to score each criterion and motivate their appreciation in writing; both supervisor and co-reader complete a separate form; and the calculation of the final grade is explained on the form.

Overlooking the entire sample, the expert reported that in ten out of fifteen cases the evaluation forms were completed in a transparent and insightful way. Overall, the assessments were done quite carefully with assessors assigning a rightful score on each of the six assessment criteria. While assessors usually also added at least some kind of comment to substantiate each score, the level of detail in these comments differed substantially: some assessors were rather brief and general, whereas others provided detailed and elaborate explanations for their assessments. In two cases the assessment form completed by one of the assessors was duplicated by/for the other assessor. According to the programme team, the supervisor and second reader independently assess the thesis and put their scores and comments on the form. These forms constitute input for the thesis defence and the final grade. In the deliberation about the thesis grade, these comments play an important role to decide how possible differences in opinion should be resolved.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this Strategic Management programme. The aforementioned suggestion to mitigate the effects of the declining student-staff ratio also applies to course assessment: the SM programme is moving towards a situation where the (limited number of) teaching staff can no longer ensure good quality assessment for the (growing number of) students, and this situation needs to be addressed in a sustainable way and with utmost priority.

Furthermore, the PRT endorses the findings of the thesis committee that the quality of thesis assessment is adequate. Compared to the previous accreditation visit, the evaluation forms are completed in a more insightful way. However, compared to the progress made by all TiSEM programmes, the SM programme team may want to encourage all assessors to provide insightful feedback in the thesis evaluation form.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel's general findings on thesis quality and graduate performance are valid for this master programme.

The final project consists of a master thesis, which accounts for 18 ECTS. Students can choose a wide range of topics and use a number of different methods provided the thesis proposal envisages a solid theoretical basis and the use of valid scientific data for the analysis.

As part of the external assessment of this programme, an expert on the thesis committee reviewed a sample of 15 SM theses. The thesis selection was based on a list featuring 209 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (20% - 75% - 5%) in the sample, the expert reviewed 3 low quality, 11 average quality and 1 high quality theses that had been assessed by a variety of supervisors and second readers. The sample contained theses of the two specialisations Entrepreneurship and Strategic Consultancy.

According to the expert, each of the fifteen theses was clearly of sufficient quality to pass; hence none of the reports was submitted to the thesis committee for a second opinion. In terms of grading, the expert agreed to twelve out of fifteen final scores including three cases where the assessors could have been slightly (0.5 point) more generous. In the three other cases, the expert thinks that a lower score (1 point) would have been more appropriate. Across the board, however, the expert found that the over- and under-valuations largely cancelled each other out, which suggests that on average the grades were fair.

Overlooking the entire sample, the expert was impressed by the quality of the theses. Even the theses with the lowest grades clearly exceeded the minimum standards. According to the expert, this suggests that thesis supervisors took their job seriously and performed their role well. Moreover, students seemed to have put much work in their theses, as evidenced by the often lengthy documents and - in some cases - elaborate appendices. In addition to the positive findings, the expert reported that a few of the empirical studies in the sample appeared to be somewhat weak in relation to the other theses.

The PRT was informed that students often start the SM programme with a particular career idea in mind and decide to enrol on this master programme because they perceive it has added value on the labour market. Students emphasised that the programme lives up to the expectations that it prepares students very well for a professional career. On average, graduates find a job within three months after graduation, very often with a big multinational company such as PWC, E&Y, Accenture, ASML or ABN AMRO.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that Strategic Management graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the SM theses is very high. Furthermore, the PRT considers that Strategic Management graduates have the right end level qualifications to pursue a relevant position on the labour market that is commensurate with the level and substance of their master programme.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this Strategic Management programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this master programme Strategic Management at the Tilburg School of Economics and Management of Tilburg University.**

18. MSc Supply Chain Management

The master Supply Chain Management (SCM) is a one-year full-time 60 ECTS programme taught in English. It aims to provide students insights in the complex processes of the supply chain and the associated decision making at strategic, tactical, and operational level. Students are taught the knowledge, skills and mindset for a successful career in business as supply chain coordinator, supply chain planner, tactical buyer or business consultant.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention of these programmes to the developments in their respective professional domains are all valid for this particular master programme.

The panel gathers from the materials that several institutions in the Netherlands and beyond offer a similar master programme in SCM. The programme at TiSEM shares with its benchmarks an emphasis on analytical and problem-solving for effective decision making in supply chains, a research-driven approach to education, close contacts with industry and a focus on leadership and communication skills. Its unique selling point is the strategic orientation of the programme, which befits its position within TiSEM's Department of Management. Other programmes have a stronger focus on data-driven decision making and data science skills, and pay more attention to current trends such as digital technologies and societal impact. A few Dutch programmes are moving towards a stronger focus on operations research.

The PRT has studied the intended learning outcomes, which have been adjusted and updated since the previous accreditation. The current set of learning outcomes is not only aligned with the structure of the Dutch Qualification Framework (NLQF) at master level 7 but also continues to reflect the internationally accepted Dublin Descriptors. The PRT establishes that the learning outcomes are concrete in terms of content (supply chain management), level (master) and orientation (academic). Moreover, they reflect the current vision and strategic values of the university and the school. The panel gathers from the self-evaluation report that the programme team is considering to also pay attention to data science skills and data-driven decision making. It agrees that such changes would require an adaptation of the learning outcomes.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the current set of learning outcomes reflect the content, level and orientation of this MSc programme in SCM. The panel thinks that the revision exercise has been successful because the learning outcomes address all competencies and reflect the key values of the university and the school.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment*Findings*

The PRT's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the programme is well thought-through. Compared to the previous accreditation, the SCM programme is now much more self-standing: before it shared three courses with the SM programme; now all courses are developed and delivered with SCM students in mind, including the Research Skills course which has two programme-specific versions, one for SM and one for SCM. The curriculum consists of six core courses (30 ECTS), two restricted electives (12 ECTS) and a master thesis (18 ECTS). The SCM programme is spread over four units and students can enrol both in Fall and in Spring. The first unit focuses on knowledge, the second unit is dedicated to specialised knowledge areas and skills and methods, the third unit pays attention to reflection and learning skills and the fourth unit is dedicated to the master thesis. In the curriculum there is ample attention to professional skills and job market orientation: the course Leadership and Career Development prepares and supports the students in their transition to the job market and students need to attend various workshops on professional skills. Moreover, most students conduct thesis research for a company and get the opportunity to further apply and develop professional skills onsite.

The SCM programme is taught in English, which befits the global nature of today's supply chains and the internationalisation of the SCM field. This language choice allows to target both Dutch and international students who are taught by a multinational team of teaching staff who are using research articles and business cases that are available in English. Moreover, an English language programme prepares students for the increasingly international labour market. In line with its overall appreciation of the choices TiSEM makes regarding the language of instruction in its degree programmes, the PRT supports the motivation to offer this SCM programme in English.

Over the past five years, the intake has grown from 201 to 324 students. The total number of SCM students increased from 267 to 388. Cohorts consist of students with a bachelor's degree from TiSEM (mostly BE, IBA and EBE), students who enter the programme through a pre-master programme, and students with a relevant degree from other universities in the Netherlands and abroad. Most students are Dutch, approximately 10-15% is international. While the number of international students remains stable, their share is reducing in view of the greater number of Dutch (pre-master) students. In terms of study progress, the panel notices from the materials that drop-out rates are higher and nominal success rates lower for the spring

cohorts. Following the outbreak of the COVID-19 pandemic, there were less students in the 2019-2020 cohort who graduated in one year.

The cohort composition differs per intake moment: students who enter in fall are either TiSEM or external students, while in spring the majority of the intake consists of pre-master students. According to the programme team, faculty and lecturers do not really perceive this difference in cohort composition as a challenge. In both cohorts there are students with a more theory-driven and with a more practice-driven mindset. Since most of our courses contain a mix of theory and practice-related activities, the mixed student population is very suitable for our courses. In the thesis supervision process, there are some differences along the same theory-practice divide but staff can handle this through individual supervision. While the programme welcomes the different student groups, it is also important to keep a certain balance between the groups and to ensure that all students enter the programme with the appropriate interest and mindset. Similar to the SM programme, the SCM team notices that a subgroup of pre-master students seems to be less interested in academic thinking. Hence the – temporary - decision to open the pre-master programme as of September 2022 only to students with a minimum GPA of 7.0. After three years, this measure will be evaluated.

The self-evaluation contains an overview of the SCM courses and their respective coordinators and lecturers. The panel notices that most academic staff are active researchers in the domain of SCM. Some faculty have part-time appointments and combine this with work in SCM-related organisations. All courses are taught by a group of lecturers and a coordinator, and almost all course teaching teams are international. Given that there are quite a few new teaching staff on the programme, the panel welcomes the attention of the programme team to connect the specific research expertise of the individual lecturers to their education tasks. As these new staff seem to replace rather than complement the team, the panel notices that the increase in student numbers was not followed by an increase in staff.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the SCM courses connect neatly to the overall programme objectives. The adjustment of existing – shared - courses to targeted SCM courses is a positive development. The panel considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable SCM students to reach the intended learning outcomes.

Acknowledging the challenges of a growing student intake with diverse backgrounds and of involving new staff in the programme, the panel endorses the actions undertaken by the programme team until now. Similar to the situation in its ‘sister’ programme SM, the student-staff ratio of the SCM programme is worsening and puts a strain on the capacity of the teaching team. Hence, the PRT suggests that the programme team and the school management take immediate action to mitigate the effects of this situation in the short run and solve the situation in the long run.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this master programme.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment forms are varied, that individual SCM courses tend to use different forms of assessment and that these tests benefit the course learning goals and contribute to the overall programme learning outcomes. The panel notices that the growing number of students has sometimes forced the team to look for other ways of assessment that keep the workload of the staff manageable. While the programme strives to maintain the school-wide principles regarding course assessment, the current formats of assessment in the SCM programme are very useful for the students' learning process but require a lot of work from the examiners in terms of assessment and feedback.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The review performed by the thesis committee shows that assessors use an appropriate evaluation form to report on their assessment of SCM theses: according to the thesis expert, the evaluation criteria are relevant and described in detail; the evaluation form invites assessors to score each criterion and motivate their appreciation in writing; both supervisor and co-reader complete a separate form; and the calculation of the final grade is explained on the form.

The expert reported that all forms were available, had been completed by both assessors and contained a mark per criterion as well as a motivation of this mark. While not always agreeing to the final scores, the expert found that in fourteen out of fifteen cases, the evaluation form was completed in an insightful way. In one case, the expert noted that the motivation on several categories was quite distinct from the suggested grades.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this SCM programme. The aforementioned suggestion to mitigate the effects of the declining student-staff ratio also applies to course assessment: the SCM programme is moving towards a situation where the limited number of teaching staff can no longer ensure good quality assessment for the growing number of students, and this situation needs to be addressed in a sustainable way and with utmost priority.

Furthermore, the panel endorses the findings of the thesis committee that the quality of thesis assessment is very good. Compared to the previous accreditation visit, the evaluation forms are completed in a much more insightful way.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel's general findings on thesis quality and graduate performance are valid for this programme.

The final project constitutes of a master thesis, which amounts to 18 ECTS. Students can choose their own topic: most students carry out a research project for a company, while about 10% opts for a more theoretical project. In both cases, students are expected to collect empirical data for their research.

As part of the external assessment of this programme, an expert on the thesis committee reviewed a sample of 15 SCM theses. The thesis selection was based on a list featuring 188 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (26% - 69% - 5%) in the sample, the expert reviewed 4 low quality, 10 average quality and 1 high quality theses that had been assessed by a variety of supervisors and second readers.

According to the expert, thirteen out of fifteen theses were clearly of sufficient quality to pass. Two theses were submitted to the committee for a second opinion. In the first case, the expert found that the thesis was not well-developed and should not have been accepted in its current state but sent back for adjustments and re-submission; the fellow reviewer agreed that the score (7) was too high, that the first part was better than the second part but nonetheless thought that the thesis deserved a (meagre) pass. In the other case, both expert and fellow reviewer agreed that the thesis was more suited for bachelor than master level. Even for a master thesis with final score 6, it lacked methodological rigour and depth of analysis, and only used a very limited number of data points. Hence, the thesis committee considered that fourteen out of fifteen theses were of sufficient quality.

In terms of scoring, the expert agreed to eleven out of fifteen final scores. In addition to the two above-mentioned cases, the expert thought that two other theses deserved a lower score (-1 point) because (i) the research question was not sufficiently precise which had consequences for the method used, the analysis made and the solutions proposed, and (ii) because the thesis only addressed a practical problem with little theoretical contribution and relevance.

Overlooking the entire sample, the expert reported that many theses addressed timely topics that related to the pandemic (e.g. on resilience, sustainability, agility) or to technological developments (such as big data, VR, MR).

Furthermore, the expert reported that students aim in their (company) research projects to make a contribution to practice. However, many theses just tried to solve a company problem without looking into the deeper reason why this problem (still) existed. In this way, students did not explore the academic gap and did not aim for a contribution to the academic audience. Moreover, the theses often focussed on an instrumental problem (expressed by the company in terms of a need for a better instrument/tool) instead of the aspect that the company would like to improve (which is often ill-defined as enhancing performance, improving business, et cetera). According to the expert, the programme should find a way to prevent students from just applying the known theories/methods to a practical problem and have them specify the academic gap to which they aim to contribute and look deeper into the analysis of the problem. According to the programme team, the required level of analysis is up to standard but a group of students fails to address the issue of generalisation of the research findings, in particular when they conduct a theory-driven case study. This issue is covered in the research skills course but with little effect. Moreover, students who conduct their thesis in a company environment often struggle with addressing the generalization aspect in a structured way in the design of their study. They also often struggle with the timing: once they have finished the data collection and conducted their specific analyses for the company, there is often not enough time anymore for a solid reflection on the theoretical contribution of the research. As of 2022-2023, the contents of the research skills course will be adapted and include more attention to the flaw mentioned by the thesis committee.

The PRT was informed that almost all SCM graduates opt for a career in business and do not envisage a PhD trajectory. The labour market situation is positive for SCM students who do not have to do a lot of effort to find a job. In fact, SCM student receive multiple job offers around the time they graduate. A short survey during the pandemic (in October 2020) showed that two months after graduation 95% of the recent graduates were employed.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that SCM graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the SCM theses is adequate. It is confident that the flaws reported by the thesis committee on the limited attention / capacity of certain students to reflect on the theoretical contribution of their research will be addressed in the curriculum. Furthermore, the PRT considers that SCM graduates have the right end level qualifications to pursue a relevant position on the labour market that is commensurate with the level and substance of their master programme.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this SCM programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this master programme Supply Chain Management at the Tilburg School of Economics and Management of Tilburg University.**

19. MSc Tax Economics

The master *Fiscale Economie* (Tax Economics, TE) is a one-year full-time 60 ECTS programme taught in Dutch. It aims to offer students a broad and in-depth academic background in the dynamic field of tax economics. Students acquire profound knowledge about the (political) economic and legal context of taxing systems, get acquainted with national and international tax law, and develop the professional skills to act in the field of taxation.

Standard 1 – intended learning outcomes

Findings

The PRT's general findings on the mission, vision and values of the university and the school, on their connection with the rationale of the respective degree programmes, and on the structural attention of these programmes to the developments in their respective professional domains are all valid for this particular master programme.

The panel gathers from the materials that the master TE is a self-standing programme that builds on the bachelor Tax Education. It is both a system-oriented and principle-based study of the taxing system: students are offered a methodical way to both study the taxing system as it currently stands and reflect critically on what the taxing system should be like. In this way, students do not only acquire the relevant knowledge to work as professionals on the labour market, but they also develop the systematic tools to criticize this taxing system and to become critical citizens of society.

There are several universities in the Netherlands that provide similar TE programmes. Their learning outcomes are quite comparable. The TE programmes in Tilburg and Maastricht offer the broadest variety through their choice of optional courses and the different types of assessment methods.

The PRT has studied the set of intended learning outcomes. Compared to the previous accreditation, the learning outcomes have not changed but will be adjusted as part of a broader programme revision in the academic year 2022-2023. They are geared to the expectations of the professional field and (inter)national requirements. The panel notices that the current learning outcomes are broken down in knowledge, skills and attitude, that they reflect the internationally accepted Dublin Descriptors and that they are sufficiently concrete in terms of content (tax economics), level (bachelor) and orientation (academic). Moreover, the learning outcomes continue to be relevant as they comply with the standards set by the Dutch Association for Tax Advisors (NOB) for its members in terms of expertise, professional skills and ethics. All TE graduates can apply with NOB and become full members by taking additional courses in combination with a relevant job at accredited tax consultancy firms.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the current set of learning outcomes reflect the content, level and orientation of

this MSc programme in Tax Economics. The relevance of the learning outcomes are monitored among others by the professional association of tax advisors in the Netherlands.

Conclusion

The PRT judges that **this programme meets standard 1, intended learning outcomes.**

Standard 2 – teaching and learning environment

Findings

The PRT's general findings on the teaching-learning environment at TiSEM are also valid for this programme's curriculum, didactics, students, staff and facilities.

The panel gathers from the written materials and the discussions on site that the programme is well thought-through. The curriculum consists of four core courses (24 ECTS), two restricted electives (12 ECTS), one free elective (6 ECTS) and the master thesis (18 ECTS). Since the previous accreditation, the programme introduced two new core courses and a new system for the electives: two electives are to be chosen in Tax Economics and one in Tax Law. All core courses are combined with the Tax Law master programme of the Tilburg Law School.

In addition to the regular curriculum, students can choose the track Indirect Taxes, which is offered in cooperation with Maastricht University, VU Amsterdam and Leiden University. In this track students follow the four compulsory courses but have no free elective: instead they choose three out of five specialised courses in indirect taxes taught by – and at – the partner institutions.

Because the programme studies the economic, legal and institutional framework of the Dutch taxing system, TE is offered in Dutch by Dutch (speaking) faculty and attracts Dutch students. However, it is obvious that the framework and system cannot be studied in isolation from international developments; hence students learn about the factual and desirable impact of international tax competition and coordination. Moreover, the developments in the European Union are a central element in the programme.

Students indicated in their contribution that they appreciate the curriculum set-up and the course contents. The programme focuses on the Dutch situation yet provides the relevant international context, as well as the political agenda behind the developments in the system. Those who want to specialise in Indirect Taxes can do so through a dedicated set of courses, while students who are on the regular track have quite some freedom to tailor their individual study plan. Moreover, the programme prepares students well for a position in tax practice on the labour market.

As a point for attention, students mentioned the difference in (perceived) study load between the invariably tough compulsory courses and the elective courses which require less time. The programme team is aware of this issue and is currently reviewing the workload, including the assessment format, of the elective courses. The topic is on the agenda of the education meeting

in the Fiscal Institute Tilburg which groups all course coordinators of the Tax Economics and Tax Law programmes.

Over the past five years, the average intake has been around 60 students per year and is growing slowly but steadily; 18% of the students opted for the Indirect Tax track. Most students have a bachelor's degree in TE, while about one fifth enters the programme after a pre-master. The latter students often enrol on the programme in Spring. In terms of study progression, there are not many students who finish the programme within the nominal duration of one year. Taken both entry moments together, at best half of the students graduate within two years. The panel notices that in many cases the delay is not caused structurally by the feasibility of the study load, but because students opt for an extra-curricular internship to acquire practical experience that will allow them to find a relevant job.

The self-evaluation contains an overview of the TE courses and their respective coordinators and lecturers. The panel notices that most academic staff are active researchers and their specific expertise matches the topics they teach in the curriculum. Some faculty have part-time appointments and combine this with work in TE-related organisations. Compared to similar sections in other self-evaluation reports, the Fiscal Institute Tilburg pays considerable attention to continuous training and improvement of staff members to guarantee that their expertise is up to date. This happens through peer feedback among faculty, professional education organised by the Dutch Association of Tax Advisors, and the meetings of the Education Group reflecting on possible improvements of the programme. Students highly appreciate their lecturers who are aware of the latest developments in the field and discuss real-life cases in class. This in turn gives students a certain degree of hands-on experience and provides insight into the practical application of the acquired theoretical knowledge. In their contribution, students explicitly thanked the staff for the rapid changes in education during the pandemic, which has allowed to avoid additional study delays.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that the TE courses connect neatly to the overall programme objectives. The revised curriculum (contents) fully align with the programme rationale and the two tracks. The panel considers that the curriculum set-up, the didactical approach, the staff and the student facilities enable TE students to reach the intended learning outcomes. It endorses the appreciation of the students for the curriculum contents, for the way the programme prepares them for a position on the labour market, and for the quality and commitment of the staff.

Conclusion

The PRT judges that **this programme meets standard 2, teaching-learning environment.**

Standard 3 – assessment

Findings

The panel's general findings on the assessment policy, the quality of tests and the quality assurance of assessments through the Examinations Board are valid for this master programme.

The PRT gathers from the materials and in particular from the programme's assessment plan that the assessment forms are varied, that individual Tax Economics courses tend to use different forms of assessment and that these tests benefit the course learning goals and contribute to the overall programme learning outcomes. The panel notices that the assessment formats differ per type of course and fit with the assessment policy framework set by the school, with the number of students and with the way teaching staff cooperate in the Fiscal Institute Tilburg.

With regard to thesis assessment, the findings mentioned in the general section also apply to this programme. The expert reported that the sample included three completely different evaluation forms. In nine cases the form itself was not very insightful as it only had four categories and gave little room for qualitative assessment of the supervisor and no room at all for qualitative remarks of the second reader. This made it difficult to assess why two students with the same mark 'sufficient' still ended up with a different grade. Moreover, a lot of room was used for explaining the form; it would be better if more room was given for motivating the grade of the specific thesis. The other two forms – used in five and one case respectively – provided much more information. Both supervisor and second reader could provide feedback on the score, which they usually but not always did. The expert wondered if it is policy at programme or school level to ensure that all assessors provide feedback; based on the sample it seemed that there is a group of supervisors and second readers that consistently provided a qualitative motivation of the scores and, on the other hand, another smaller group of persons that consistently did not provide (insightful) qualitative motivation.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT appreciates the system of assessment, the organisation and implementation of course assessments and the way quality of assessment is assured in this TE programme. In addition the panel endorses the findings of the thesis committee that the quality of thesis assessment is adequate. Compared to the previous accreditation visit, the evaluation forms are completed in a more insightful way. However, compared to the progress made in this respect across all TiSEM programmes, the TE programme team may want to encourage all assessors to provide insightful feedback in the thesis evaluation form.

Conclusion

The PRT judges that **this programme meets standard 3, assessment.**

Standard 4 – achieved learning outcomes

Findings

The panel's general findings on thesis quality and graduate performance are valid for this programme.

The final project consists of a master thesis, which accounts for 18 ECTS. In addition to a regular thesis, students can participate in international projects (Winter course, EU Moot Court, Antwerp project) and produce a thesis that should comply with the same assessment criteria.

As part of the external assessment of this programme, an expert on the thesis committee reviewed a sample of 15 TE theses. The thesis selection was based on a list featuring 50 students who graduated in the academic year 2020-2021. Ensuring a fair distribution among the scoring categories (14% - 82% - 4%) in the sample, the expert reviewed 3 low quality, 11 average quality and 1 high quality theses that had been assessed by a variety of supervisors and second readers.

According to the expert, each of the fifteen theses was clearly of sufficient quality to pass; hence, none of the reports was submitted to the thesis committee for a second opinion. In terms of grading, the expert agreed to all fifteen final scores given by the respective assessors. As a result, the ranking of the theses was adequate: theses with a higher score were indeed of better quality than those receiving a lower grade, while theses with an identical grade were of comparable quality.

Overlooking the sample, the expert reported that the master theses were of good quality and did justice to the reputation of Tilburg University in tax thesis competitions. In this regard, the expert noted with satisfaction that also weaker students (who do not enter such competitions) were brought to an acceptable level. Overall, theses were well structured and well written. Students invariably made good use of literature, and almost in all cases the literature was both national and international.

In a few cases, the expert saw room for more student guidance during the thesis trajectory, e.g. when setting up a focused research question and its operationalisation, when organising literature lists and in monitoring the length of the theses. According to the programme team, students receive adequate training and preparation to produce a research proposal but can always ask further advice from the supervisor. Moreover, the maximum length of a master thesis is 16000 words.

The PRT was informed that Tax Economics graduates have excellent career opportunities. While a lot of students already have a contract before they graduate, most graduates find a job within three months after graduation. Students confirmed in their contribution that graduating from Tilburg's TE programme is highly regarded by the professional field. Moreover, the programme provides a good basis to start on the labour market, where alumni work in auditing or tax advisory firms, with the Dutch tax authorities, or in other public institutions.

Considerations

In line with its general considerations on this standard across TiSEM programmes, the PRT establishes that TE graduates achieve the programme learning outcomes. The panel endorses the findings of the thesis committee that the quality of the TE thesis is very good. Furthermore, the PRT considers that TE graduates have the right end level qualifications to pursue a relevant position on the labour market that is commensurate with the level and substance of their master programme.

Conclusion

The PRT judges that **this programme meets standard 4, achieved learning outcomes.**

Overall conclusion

In sum, the panel considers that this programme meets the quality requirements set by the NVAO evaluation framework for limited programme assessment. This appreciation is based on its general findings and considerations across all TiSEM programmes, as well as on the way this TE programme fulfils each and every standard in its own way. Hence, **the Peer Review Team issues a positive advice to NVAO on this master programme Tax Economics at the Tilburg School of Economics and Management of Tilburg University.**

ANNEXES

Annex 1 – Administrative data on institution and programmes

Administrative data on the institution

Name of the institution:	Tilburg University School of Economics and Management
Status of the institution:	publicly funded
Result of the institutional quality assurance assessment:	positive (2019)
Contact person TiSEM:	Yvonne de Vries (v.m.c.deVries@tilburguniversity.edu)

Administrative data on the programmes

Bachelor programmes

(1) Name: Bedrijfseconomie (Business Economics)

CROHO:	50750
Level:	bachelor
Orientation:	academic
Credits:	180 ECTS
Location:	Tilburg
Mode of study:	full-time
Language:	Dutch
Tracks:	none

(2) Name: Econometrie en Operationele Research (Econometrics and Operations Research)

CROHO:	56833
Level:	bachelor
Orientation:	academic
Credits:	180 ECTS
Location:	Tilburg
Mode of study:	full-time
Language:	Dutch
Tracks:	none

(3) Name: Economie (Economics)

CROHO:	56401
Level:	bachelor
Orientation:	academic
Credits:	180 ECTS

Location: Tilburg
 Mode of study: full-time
 Language: English
 Tracks: none

(4) Name: Economie en Bedrijfseconomie (Economics and Business Economics)

CROHO: 50950
 Level: bachelor
 Orientation: academic
 Credits: 180 ECTS
 Location: Tilburg
 Mode of study: full-time
 Language: Dutch
 Tracks: none

(5) Name: International Business Administration

CROHO: 50952
 Level: bachelor
 Orientation: academic
 Credits: 180 ECTS
 Location: Tilburg
 Mode of study: full-time
 Language: English
 Tracks: none

(6) Name: Fiscale Economie (Tax Economics)

CROHO: 56402
 Level: bachelor
 Orientation: academic
 Credits: 180 ECTS
 Location: Tilburg
 Mode of study: full-time
 Language: Dutch
 Tracks: none

Master programmes

(7) Name: Accountancy

CROHO: 60060
 Level: master
 Orientation: academic
 Credits: 60 ECTS
 Location: Tilburg
 Mode of study: full-time
 Language: English
 Tracks: none

(8) Name: Business Analytics and Operations Research

CROHO: 60057
 Level: master
 Orientation: academic
 Credits: 60 ECTS
 Location: Tilburg
 Mode of study: full-time
 Language: English
 Tracks: none

(9) Name: Econometrics and Mathematical Economics

CROHO: 60056
 Level: master
 Orientation: academic
 Credits: 60 ECTS
 Location: Tilburg
 Mode of study: full-time
 Language: English
 Tracks: none

(10) Name: Economics

CROHO: 66401
 Level: master
 Orientation: academic
 Credits: 60 ECTS
 Location: Tilburg
 Mode of study: full-time
 Language: English
 Tracks: free track - behavioural economics - data science - financial economics
 - law and economics - sustainable development - public policy

(11) Name: Finance

CROHO: 60046
 Level: master
 Orientation: academic
 Credits: 60 ECTS
 Location: Tilburg
 Mode of study: full-time
 Language: English
 Tracks: Finance – Chartered Financial Analyst (CFA)

(12) Name: Information Management

CROHO: 60055
 Level: master
 Orientation: academic
 Credits: 60 ECTS

Location: Tilburg
Mode of study: full-time
Language: English
Tracks: Information Management - IMMIT

(13) Name: International Management

CROHO: 60407
Level: master
Orientation: academic
Credits: 60 ECTS
Location: Tilburg
Mode of study: full-time
Language: English
Tracks: none

(14) Name: Marketing Analytics

CROHO: 60064
Level: master
Orientation: academic
Credits: 60 ECTS
Location: Tilburg
Mode of study: full-time
Language: English
Tracks: none

(15) Name: Marketing Management

CROHO: 60063
Level: master
Orientation: academic
Credits: 60 ECTS
Location: Tilburg
Mode of study: full-time
Language: English
Tracks: none

(16) Name: Quantitative Finance and Actuarial Science

CROHO: 60058
Level: master
Orientation: academic
Credits: 60 ECTS
Location: Tilburg
Mode of study: full-time
Language: English
Tracks: none

(17) Name: Strategic Management

CROHO: 60066

Level: master
Orientation: academic
Credits: 60 ECTS
Location: Tilburg
Mode of study: full-time
Language: English
Tracks: Entrepreneurship – Strategic Consultancy

(18) Name: Supply Chain Management

CROHO: 60093
Level: master
Orientation: academic
Credits: 60 ECTS
Location: Tilburg
Mode of study: full-time
Language: English
Tracks: none

(19) Name: Fiscale Economie (Tax Economics)

CROHO: 66402
Level: master
Orientation: academic
Credits: 60 ECTS
Location: Tilburg
Mode of study: full-time
Language: Dutch
Tracks: Fiscale Economie - Accentprogramma Indirecte Belastingen

Annex 2 – Peer Review Team and Thesis Committee members

Peer Review Team

Rudy Martens, PRT chair

Rudy was full professor of Management and Strategy at the University of Antwerp, Belgium. He was Dean of the Faculty of Business and Economics at the University of Antwerp and Head of the Management Department before retiring in September 2021. Professor Martens has extensive experience as chair and member of Peer Review Teams on behalf AACSB, EPAS-EFMD and VLIR-NVAO.

Philip Vergauwen, NVAO member of the PRT

Philip is the past Dean of the Solvay Brussels School of Economics and Management Philip at the Université Libre de Bruxelles. Before, he was Dean of the School of Business and Economics at Maastricht University. Professor Vergauwen has extensive accreditation experience, on both sides of the table, with AACSB, EFMD and NVAO.

Michael Ginzberg, AACSB member of the PRT

Michael is professor of Technology Management and Dean Emeritus at the Worcester Polytechnic Institute in Worcester (MA), USA. In his long career he served as Dean at several colleges in the US and set up among others a graduate business school in post-war Sarajevo. Professor Ginzberg mentored several schools seeking accreditation and served on many AACSB accreditation panels, both domestic and international, including one combined AACSB-NVAO panel.

Filipe Santos, AACSB member of the PRT

Filipe is Dean of the Católica Lisbon School of Business and Economics and professor in Entrepreneurship and Social Innovation. Professor Santos founded Portugal Inovação Social, which promotes and supports social innovation in Portugal.

Evi Voets, NVAO student-member of the PRT

Ms. Voets has a bachelor's degree in International Business (major Marketing) and is currently following a MSc International Business at Maastricht University. Evi is member of the programme committee and student council in the School of Business and Economics.

Thesis Committee

Philip Vergauwen, Solvay Brussels School of Economics & Management, chair

Being familiar with the Dutch higher education system, Philip functioned as linking pin between the Peer Review Team and the thesis committee. As chair of the thesis committee, he supervised the sample selection, quality controlled the individual thesis reviews that required a second opinion, and validated the thesis committee report.

Egon Berghout, University of Groningen

Egon is professor Bestuurlijke Informatiekunde at the Faculty of Economics and Business in Groningen. On behalf of the committee, Egon reviewed the theses of the MSc Information Management.

José Bloemer, Radboud University Nijmegen

José is professor of Marketing in Nijmegen. On behalf of the committee, he reviewed the theses of the MSc Marketing Management.

Jan Bouwman, Groningen University

Jan is professor of Tax Law at the Faculty of Law in Groningen. On behalf of the committee, he reviewed the theses of the BSc Tax Economics.

Martine Cools, KU Leuven

Martine is professor of Management Accounting and Control at KU Leuven, campus Antwerpen. On behalf of the committee, she reviewed the theses of the MSc Accountancy.

Henri de Groot, Vrije Universiteit Amsterdam

Henri is professor in Regional Economic Dynamics at the Department of Spatial Economics of VU. On behalf of the committee, he reviewed the theses of the MSc Economics.

Marc Deloof, Antwerp University

Marc is professor of Finance at the Department of Accountancy and Finance in Antwerpen. On behalf of the committee, he reviewed the theses of the MSc Finance.

Rian Drogendijk, University of Groningen

Rian is professor of International Business at the Faculty of Economics and Business in Groningen. On behalf of the committee, she reviewed the theses of the Management track in the MSc International Management.

Robert Dur, Erasmus University Rotterdam

Robert is professor of Economics at the department of Economics in Rotterdam. On behalf of the committee, he reviewed the theses of the BSc Economics.

Harry Garretsen, University of Groningen

Harry is professor of International Economics and Business at the University of Groningen. On behalf of the committee, he reviewed the theses of the BSc Economics and Business Economics.

Sigrid Hemels, Erasmus University Rotterdam

Sigrid is professor Belastingrecht at the Erasmus School of Law in Rotterdam. On behalf of the committee, she reviewed the theses of the MSc Tax Economics.

Koen Inghelbrecht, Ghent University

Koen is professor of Finance at the Department of Economics in Gent. On behalf of the committee, he reviewed the theses of the Finance tracks in the BSc Business Economics, the BSc International Business Administration and the MSc International Management.

Roger Laeven, University of Amsterdam

Roger is professor of Mathematic and Economics of Risk at the Department of Quantitative Economics in the Amsterdam School of Economics. On behalf of the committee, he reviewed the theses of the MSc Econometrics and Mathematical Economics.

Frank Moers, Maastricht University

Frank is professor of Management Accounting & Control at the School of Business and Economics in Maastricht. On behalf of the committee, he reviewed the theses of the Accounting tracks in the BSc Business Economics and BSc International Business Administration and of the Management track in the latter programme.

Rudolf Muller, Maastricht University

Rudolf is professor for Quantitative Infonomics at the School of Business and Economics in Maastricht. On behalf of the committee, he reviewed the theses of the MSc Business Analytics and Operations Research.

Antoon Pelsser, Maastricht University

Antoon is professor of Finance and Actuarial Science at the School of Business and Economics in Maastricht. On behalf of the committee, he reviewed the theses of the MSc Quantitative Finance and Actuarial Science.

Jan Riezebos, University of Groningen

Jan is professor of Operations and Educational Innovation at the Faculty of Economics and Business in Groningen. On behalf of the committee, he reviewed the theses of the MSc Supply Chain Management.

Hendrik Slabbinck, Ghent University

Hendrik is associate professor at the Department of Marketing, Innovation and Organisation in Gent. On behalf of the committee, he reviewed the theses of the Marketing tracks of the BSc Business Economics, the BSc International Business Administration and the MSc International Management.

Arjen Slangen, KU Leuven

Arjen is professor of International Business at the Department of Management, Strategy and Innovation in Leuven. On behalf of the committee, he reviewed the theses of the MSc Strategic Management.

Laura Spierdijk, Twente University

Laura holds the chair Financial Engineering and Management at the Faculty of Behavioural Management and Social Sciences in Twente. On behalf of the committee, she reviewed the theses of the BSc Econometrics and Operations Research.

Bas van der Klaauw, Vrije Universiteit Amsterdam

Bas is professor of Economics and fellow of the Tinbergen Institute at VU. On behalf of the committee, he reviewed the theses of the Research Master Economics.

Iris Vermeir, Ghent University

Iris is associate professor at the Department of Marketing of the Faculty of Economics and Business Administration in Gent. On behalf of the committee, she reviewed the theses of the MSc Marketing Analytics.

Both the thesis committee and the peer review team were assisted by **Mark Delmartino**, MDM Consultancy bv, Antwerpen – Belgium. As freelance secretary, Mark has worked with NVAO panels since 2006. He is certified by NVAO and has broad experience in supporting combined AACSB-NVAO accreditation panels in the Netherlands.

All members of the peer review team and the thesis committee, as well as the secretary have signed the NVAO independence form.

Annex 3 - Programme of the site visit

Sunday 29 May 2022

- 16.00h Preparatory meeting Peer Review Team
- 18.00h Welcome Dinner TiSEM and TIAS
- 21.00h end of day 1

Monday 30 May 2022

- 08.45h Meeting with Rector and Vice-Rector
- 09.30h Strategic Management TiSEM
- 10.35h Academic Directors BSc programmes TiSEM
- 11.35h Students BSc programmes TiSEM
- 12.10h Faculty BSc programme TiSEM
- 12.45h Lunch and internal meeting PRT
- 13.30h Leadership TIAS
- 14.20h Directors and Cluster Managers TIAS
- 15.15h Parallel sessions on Faculty Development TiSEM and TIAS
- 16.05h Programme Directors TIAS
- 17.20h Parallel sessions with Alumni TiSEM and TIAS
- 18.30h Walking Dinner with International Advisory Boards TiSEM and TIAS
- 20.30h end of day 2

Tuesday 10 November 2020

- 08.30h Dedicated session to Research Master Economics TiSEM
- 09.20h Academic Directors MSc programmes TiSEM
- 10.20h Students MSc programmes TiSEM
- 11.15h Faculty MSc programmes TiSEM
- 12.15h Examination Board and Assessment Assurance Committee TiSEM
- 13.00h Lunch and internal meeting PRT
- 13.45h Staff services TiSEM
- 14.35h Faculty degree and non-degree programmes TIAS

15.40h	Students degree programmes TIAS
16.30h	Staff support departments TIAS
17.15h	Quality assurance and improvement TIAS
18.05h	Examination Board TIAS
19.30h	Dinner and internal meeting PRT
23.00h	end of day 3

Wednesday 1 June 2022

08.30h	Session on research and intellectual contribution TiSEM
09.20h	Session on impact and engagement TIAS
10.20h	Consultative Feedback and Development Dialogue TiSEM and TIAS
11.30h	Optional meeting to clarify outstanding issues
12.00h	Lunch and internal meeting PRT
13.45h	Feedback to Management TiSEM and TIAS
14.30h	Feedback to Academic / Programme Directors TiSEM and TIAS
14.45h	Feedback to Rector and Vice-Rector
15.15h	end of site visit

An overview of the persons interviewed is available on request.

Annex 4 – Materials reviewed

Documents prepared for the AACSB-NVAO combined visit:

- AACSB Continuous Improvement Review report TiSEM and TIAS 2021-2022
- TiSEM Self-Evaluation reports Volume 1 – BSc programmes
- TiSEM Self-Evaluation reports Volume II – MSc programmes (Business)
- TiSEM Self-Evaluation reports Volume III – MSc programmes (Economics)

Each self-evaluation report contained a student chapter, as well as appendices on the Curriculum and the Faculty.

Following annexes were attached separately in digital form

- Assessment plan for each programme
- Education and Examination Regulations 2021-2022
- Manual for Examination Board TiSEM
- TiSEM Assessment policy 2021-2022

Moreover, the PRT had access to other university-wide, faculty-wide and programme-specific materials in a dedicated digital base-room set up jointly by TiSEM and TIAS. Before and during the visit, the panel looked among others at the following documents:

- Weaving Minds & Characters, Tilburg University Strategy towards 2027
- Tilburg Educational Profile and link to the programme intended learning outcomes
- Annual Reports Education TiSEM
- Materials Education Committee
- Evaluation Online Education
- Annual Reports Examination Board
- Materials Assessment Assurance Committee
- Review Assessment Plans
- Alumni reports and surveys

In order to facilitate the work of the thesis committee, TiSEM and TIAS set up a filing system on MS Teams containing all information that was necessary to perform the thesis review, including thesis guidelines and grading grids per programme. For each programme the thesis committee reviewed a representative sample of 15 theses. A list of the selected theses per programme is available on request.