# MASTER'S PROGRAMME HEALTH FOOD INNOVATION MANAGEMENT

FACULTY OF HEALTH, MEDICINE AND LIFE SCIENCES
CAMPUS VENLO

**MAASTRICHT UNIVERSITY** 

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This report was finalized on 28-09-2018

# REPORT ON THE MASTER'S PROGRAMME HEALTH FOOD INNOVATION MANAGEMENT OF MAASTRICHT UNIVERSITY

This report takes the NVAO's Assessment Framework for Limited Programme Assessments as a starting point (September 2016).

#### ADMINISTRATIVE DATA REGARDING THE PROGRAMME

#### Master's programme Health Food Innovation Management

Name of the programme: Health Food Innovation Management

CROHO number: 60512
Level of the programme: master's
Orientation of the programme: academic
Number of credits: 120 EC

Specializations or tracks:

Location(s): UM Campus Venlo

Mode(s) of study: full time
Language of instruction: English
Expiration of accreditation: 29/01/2021

The visit of the assessment panel Health Sciences to the Faculty of Health, Medicine and Life Sciences of Maastricht University took place on 23-25 April 2018.

#### ADMINISTRATIVE DATA REGARDING THE INSTITUTION

Name of the institution:

Status of the institution:

Maastricht University
publicly funded institution

Result institutional quality assurance assessment: positive

#### COMPOSITION OF THE ASSESSMENT PANEL

The NVAO has approved the composition of the panel on 18 December 2017. The panel that assessed the master's programme Health Food Innovation Management consisted of:

- Em. prof. dr. J. (Janke) Cohen-Schotanus, emeritus professor Education & Educational Research in the medical sciences at the University of Groningen [chair];
- Prof. dr. J. (Koos) van der Velden, professor in Public Health at Radboud Universiteit Nijmegen [vice chair];
- Dr. M. (Marinus) Verhagen, assistant professor in Human Resource Studies at Tilburg University;
- Prof. dr. W. (Walter) Sermeus, professor in Health Management & Policy at the KU Leuven;
- Dr. ir. C.D. (Kees) de Gooijer, director Topconsortium Knowledge and Innovation Agri&Food;
- (Anneke) Bulten MsC, master's student Nutrition and Health at Wageningen University & Research [student member].

The panel was supported by dr. A. (Anna) Sparreboom, who acted as secretary.



#### WORKING METHOD OF THE ASSESSMENT PANEL

The site visit to the master's programme Health Food Innovation Management at Maastricht University is part of the cluster assessment Health Sciences in which seven universities participate: Twente University, Utrecht University, University of Groningen, Maastricht University, Erasmus University Rotterdam, Wageningen University and Research and Vrije Universiteit Amsterdam.

The chair of the assessment panel is Prof. dr. J. (Janke) Cohen-Schotanus, who was present during six of the seven site visits (TU, UU, UM, EUR, WUR and VU). Apart from Prof. dr. Cohen-Schotanus, the panel consisted of Prof. dr. K. (Koos) van der Velden (vice-chair), Dr. M. (Marinus) Verhagen, Prof. dr. W. (Walter) Sermeus, Dr. ir. C.D. (Kees) de Gooijer and A. (Anneke) Bulten BSc (student-member). The chair, vice-chair and Marinus Verhagen together safeguarded the consistency of the assessments. The project manager, Dr. A. (Anna) Sparreboom, acted as an independent observer.

Dr. A. (Anna) Sparreboom acted as QANU project manager for the Health Sciences cluster. Dr. F. (Floor) Meijer, Dr. J. (Joke) Corporaal, Dr. M. (Meg) Van Bogaert and Dr. A. (Anna) Sparreboom, who are all certified by NVAO, acted as independent secretaries.

#### Preparation

In preparation for the assessment, the management of the master's programme HFIM provided a self-evaluation report (SER) with relevant appendices. The secretary checked the report for completeness of information before sending it to the panel members, who studied all material in preparation for the site visit. In addition, the panel studied several theses with their assessment forms to assess the final achievement level and to review assessment practices. Because of privacy regulations, the list of studied theses can be provided by the project manager upon request.

The panel studied a selection of 15 theses from the total list of 45 theses completed in 2016 and 2017. This selection was prepared by the secretary and checked by the panel chair. It was based on the following considerations: a diversity of grades (covering the full range of marks given including high scores, middle scores and scores at the pass/fail mark), a diversity of examiners to assess the alignment of assessment practices, and a diversity of topics and subjects to assess the performance of students and the full scope of the master's program.

The panel discussed its initial findings based on the SERs and studied material by email, followed by a preparatory panel meeting on 23 April 2018. Prior to the site visit, the panel asked the programme to select representative interview partners for both programs.

#### Site visit

The site visit to Maastricht University took place from 23-25 April 2018, assisted by a NVAO-certified secretary. All panel members were present during the three-day site visit. During the site visit, the panel met with the programme management, faculty members, current students, alumni, members of the Board of Examiners and representatives of the educational committee of HFIM. It provided students and lecturers with an opportunity to meet informally during a consultation hour outside the set interviews. No requests were received for this option. It used the final part of the visit for an internal meeting to discuss its findings. The visit was concluded with an verbal presentation of the preliminary impressions and general observations by the chair of the panel. This presentation was open to all. For the full schedule of the site visit, see Appendix 4.

The panel also examined relevant study material and additional material during the site visit. An overview of all documents reviewed by the panel is included in Appendix 5.

#### Report

Based on the panel's findings, a draft report was prepared by the secretary. All panel members commented upon the draft report, and their comments and additions were implemented accordingly. The draft report was approved by the panel chair and sent to those responsible for the programme



at Maastricht University for the rebuttal procedure. The programme checked the draft report for factual irregularities. Suggestions based on this rebuttal procedure were discussed by the secretary and chair and, where necessary, other panel members before finalizing the report.

#### Definition of judgements standards

In accordance with the NVAO's Assessment framework for limited programme assessments, the panel used the following definitions for the assessment of both the standards and the programme as a whole.

#### **Generic quality**

The quality that, in an international perspective, may reasonably be expected from a higher education Associate Degree, Bachelor's or Master's programme.

#### Unsatisfactory

The programme does not meet the generic quality standard and shows shortcomings with respect to multiple aspects of the standard.

#### Satisfactory

The programme meets the generic quality standard across its entire spectrum.

#### Good

The programme systematically surpasses the generic quality standard.

#### **Excellent**

The programme systematically well surpasses the generic quality standard and is regarded as an international example.

#### SUMMARY JUDGEMENT

#### Standard 1

The master's programme in Health Food Innovation Management (HFIM) is offered at Maastricht University's location in Venlo, which is an apt location, because Venlo is an international hotspot in transport, logistics and the agriculture/food-sector. HFIM takes a multidisciplinary approach to health food innovation and product development, combining nutrition and health essentials with scientific research, consumer and market analyses, business development, food law regulations, public affairs and marketing and sales. The programme aims to deliver graduates who have enough knowledge of all of these domains to be able to understand the interplay between them and to use this multidisciplinary perspective in order to bridge the gaps between research, the development of health food products (industry) and market. The panel is enthusiastic about the programme's graduate profile, because there is a clear need for these multidisciplinary academic professionals. The fact that there are no master's programmes in the world that have a similar focus on health food innovation management, makes the profile of this programme even more relevant.

The panel concludes that HFIM has a good set of intended learning outcomes that gives clear shape to this multidisciplinary two year master's programme. All relevant themes in the field of health food innovation management are covered in the ILO's, which are in congruence with the level of the programme, that of an academic master. The programme's objectives are well translated into appropriate ILO's, but the panel suggests reducing the amount of ILO's. The panel especially values HFIM's orientation on the professional field, which is also made explicit in the intended learning outcomes.

#### Standard 2

The panel concluded that the curriculum is carefully designed; the objectives of all courses are well described in the study guide. The relevant problems that are used in the courses allow students to apply theoretical knowledge to actual situations, as is appropriate for PBL. The content of the different modules provide coherence to the programme and the courses in the two year programme are well aligned. The curriculum strikes a good balance between the acquisition of theoretical knowledge and training in skills such as project management, applied statistics and academic writing. HFIM's orientation on the professional field is clearly demonstrated by the presence of the Health and Food Venture Lab.

The panel feels that the element of food technology should be addressed more prominently in the course Food and Ingredient Categories, Carrier Systems and Food Technology. It advises to ensure that students are more adequately facilitated to gain insight into food technology. Since the field of health food innovation management is broad, the panel feels that students can benefit from some specialisation in the master's programme. It therefore advises to develop elective courses in technology, finance or sustainability.

The panel found that the curriculum does not present any bottlenecks, as indicated by the progression and completion rates. It also established that the provision of information and the supervision and guidance that students receive is adequate. The quality and quantity of teaching staff is sufficient, but the panel advises to ensure that the staff in each of the four key research areas is of sufficient size and seniority.

The panel feels that the selection and admission procedure is well organised, strict and effective. With the international composition of the student population and the PBL-system, the panel sees great potential for the internationalisation of the programme's intended learning outcomes, in terms of both knowledge and skills or competences.

The panel concludes that the curriculum, the teaching-learning environment, and the quality of staff and supervision enable students to achieve the intended learning outcomes.



#### Standard 3

The panel concludes that assessment is taken seriously at HFIM and that the validity, reliability, independency and transparency of assessment in the programme are sufficiently safeguarded. It encourages the programme's plans to professionalise and formalise the system further. In addition, the panel suggests appointing a permanent pool of second examiners in order to further improve the independency and reliability of the thesis assessment. On the basis of thesis samples, the panel concludes that the grading of the internships and theses is generally correct, but it feels that the transparency of the grading on the assessment forms can be improved.

The panel concludes that the BoE sufficiently safeguards the quality of assessment and the achievement of the intended learning outcomes and thus carries out its formal tasks. The panel advises to continue the further formalisation of its working methods and procedures. In addition, the panel recommends to take measures to decrease the distance between the BoE in Maastricht and the programme in Venlo.

#### Standard 4

The panel established that the theses in the sample are all of sufficient quality for an academic master's programme; they indicate that students are able to complete a full research project from start to finish. HFIM alumni perform well on the job market; nearly all graduates found a job on the appropriate level in a relevant sector. The programme succeeds in educating multidisciplinary academic professionals who are able to transfer scientific knowledge into actual food innovations and thus intermediate between research, industry and market. The panel concludes that all intended learning outcomes are achieved.

The panel assesses the standards from the *Assessment framework for limited programme* assessments in the following way:

Master's programme Health Food Innovation Management

Standard 1: Intended learning outcomesgoodStandard 2: Teaching-learning environmentsatisfactoryStandard 3: Assessmentsatisfactory

Standard 4: Achieved learning outcomes satisfactory

General conclusion satisfactory

The chair and the secretary of the panel 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.

Date: 28-09-2018

Prof. dr. Janke Cohen-Schotanus

Dr. Anna Sparreboom

Danetron

# DESCRIPTION OF THE STANDARDS FROM THE ASSESSMENT FRAMEWORK FOR EXTENSIVE FRAMEWORK ASSESSMENTS

#### 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.

#### Explanation:

The intended learning outcomes demonstrably describe the level of the programme (Associate Degree, Bachelor's, or Master's) as defined in the Dutch qualifications framework, as well as its orientation (professional or academic). In addition, they tie in with the regional, national or international perspective of the requirements currently set by the professional field and the discipline with regard to the contents of the programme. Insofar as is applicable, the intended learning outcomes are in accordance with relevant legislation and regulations.

#### **Findings**

The master's programme in Health Food Innovation Management (HFIM) is offered at Maastricht University's location in Venlo, which is an apt location, because Venlo is an international hotspot in transport, logistics and the agriculture/food-sector. The educational activities within the programme are coordinated by experts affiliated to research schools of multiple faculties at Maastricht University (UM). Also academically educated professionals from the food and beverage industry and experts from other research and knowledge institutes contribute to the programme. HFIM's orientation towards the professional field is also illustrated by the appointment of an Advisory Board with members from industry and academia, which reviews the relevance of the module's contents in relation to the latest developments in the health food innovation domain.

HFIM envisions that in order to develop new food products that are both commercially profitable and compliant to (inter)national nutrition regulation and health claims, a multidisciplinary approach to health food innovation is needed. The HFIM programme aims to train students in such a multidisciplinary approach by teaching state-of-the-art knowledge, academic insights and entrepreneurial skills in the domain of Health Food Innovation Management, from a national and international perspective. The learning objective for graduates of the two-year programme is to be able to guide the successful launch of new healthy food products, by taking an integral approach to product development, combining nutrition and health essentials with scientific research, consumer and market analyses, business development, food law regulations, public affairs and marketing and sales. Graduates are explicitly not trained for a career in academia, but as multidisciplinary academic professionals who can transfer scientific knowledge into actual food innovations and thus intermediate between research, industry and market. The panel is enthusiastic about the programme's graduate profile, because there is a clear need for these multidisciplinary academic professionals on the labour market. The fact that there are no master's programmes in the world that have a similar focus on health food innovation management, makes the profile of this programme even more relevant.

The 43 intended learning outcomes are formulated according to the Dublin-descriptors and intertwine with the four key research areas with which the HFIM programme is associated: 1. Nutrition and health research; 2. Consumer sciences; 3. National and international food regulations 4. Entrepreneurship and Business Development (see Appendix 1 and 2). The intended learning outcomes 1a-1u (ILO's) encompass all of these domains, but students are not expected to reach an advanced level of knowledge and understanding in each of these objectives. Instead, the programme aims to deliver graduates that have enough knowledge of all of these domains to be able to understand the interplay between them and to use this multidisciplinary perspective in order to bridge the gaps between research, the development of health food products (industry) and market (see Appendix 1 DSF §4). According to the panel this multidisciplinary approach is successfully translated

in the ILO's, note for instance 3d 'Critical overall early assessment of the potential likelihood of commercial success of innovative ideas in the light of technical, business and regulatory feasibility' and 5b 'Integrate new insights from the disciplines of life sciences or agro/food technology with economics and management, to drive science-based food innovation'. The programme's objectives are well translated into appropriate ILO's, although the panel suggests reducing the amount of ILO's. The panel appreciates the programme's orientation on the national and international professional field and its endeavours to meet the expectations and needs from the labour market. Finally, the panel wishes to congratulate the programme for creating a new research line in national and international food regulations on the basis of the educational programme in HFIM.

#### **Considerations**

HFIM takes a multidisciplinary approach to health food innovation and product development, combining nutrition and health essentials with scientific research, consumer and market analyses, business development, food law regulations, public affairs and marketing and sales. The programme aims to deliver graduates who have enough knowledge of all of these domains to be able to understand the interplay between them and to use this multidisciplinary perspective in order to bridge the gaps between research, the development of health food products (industry) and market. The panel is enthusiastic about the programme's graduate profile, because there is a clear need for these multidisciplinary academic professionals. The fact that there are no master's programmes in the world that have a similar focus on health food innovation management, makes the profile of this programme even more relevant.

The panel concludes that HFIM has a good set of intended learning outcomes that gives clear shape to this multidisciplinary two year master's programme. All relevant themes in the field of health food innovation management are covered in the ILO's, which are in congruence with the level of the programme, that of an academic master. The panel especially values HFIM's orientation on the professional field, which is also made explicit in the intended learning outcomes.

#### Conclusion

Master's programme Health Food Innovation Management: the panel assesses Standard 1 as 'good'.

#### Standard 2: Teaching-learning environment

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

#### **Explanation:**

The intended learning outcomes have been adequately translated into educational objectives of (components of) the curriculum. The diversity of the students admitted is taken into account in this respect. The teachers have sufficient expertise in terms of both subject matter and teaching methods to teach the curriculum, and provide appropriate guidance. The teaching-learning environment encourages students to play an active role in the design of their own learning process (student-centred approach). Programme-specific services and facilities are assessed, unless they involve institution-wide services and facilities already reported on during the institutional audit.

#### **Findings**

#### Programme

HFIM is a two-year programme of 120 EC that consists of eight courses and the internship and thesis (see Appendix 4). In the first year, some of the courses run parallel, alternating with the full-time courses Consumer Understanding and Behaviour and Skills Training Project Management. The second year starts with a content course Health Foods, Scientific and Regulatory Environment and a skills training, leading to the 6 month period in which students do an internship and carry out their thesis



research project. The themes of the courses encompass the 4 key research areas named above (p.10). In the first year, students gather knowledge and skills that are relevant to the 4 disciplines, in the second year they focus on translating and applying their knowledge and skills to practice.

Like all programmes at UM, the HFIM programme takes a student-centred approach to learning, using the concept of Problem-based learning (PBL), which focuses on contextual, constructive and collaborative learning. The panel examined the study material of three courses in order to obtain an impression of the content of the curriculum. The courses Health Foods, Scientific and Regulatory Environment, Consumer understanding and behaviour and Consumer concerns, health targets and market segments were selected. In addition to the PBL project groups, students attend introductory, topic-related and keynote lectures, as well as skills trainings. The panel concluded that these courses were all carefully designed, with clear learning objectives per course and relevant problems that allow students to apply theoretical knowledge to actual situations, as is appropriate for PBL. The content of the different modules provides coherence to the programme; an example of this is the fact that students use an assignment that they wrote in course A, such as a protocol, later on in course B about regulations. The panel established that the courses in the two year programme are well aligned. It also noted that the curriculum strikes a good balance between the acquisition of theoretical knowledge and training in skills such as project management, applied statistics and academic writing. HFIM's orientation on the professional field is clearly demonstrated by the presence of the Health and Food Venture Lab, where students can train to use their knowledge and skills by creating a business concept.

The panel has seen that the objectives of all courses are well described in the study guide and established that they together comprise the complete set of ILO's (Appendix 2). On the basis of the course material that was prepared for the site visit and the interviews, the panel verified that the curriculum enables students to achieve all ILO's. The panel feels, however, that the element of food technology that is described in ILO's 1f, 1i, 2e, 3d and 4d, should be addressed more prominently in the course Food and Ingredient Categories, Carrier Systems and Food Technology. Although this course was recently revised, the panel advises to adapt it again with some urgency; the course should prescribe more literature about food technology. Also, the programme has to ensure that students have more access to expertise in this field. The panel has heard that a start has been made to this effect; the programme has already liaised with food technologists at HAS University of Applied Sciences and the Food Science Department at the Université Laval (Canada) with the intention to set up collaborations and an exchange programme. The panel urges the programme to quickly effectuate these plans so that students will be more adequately facilitated to gain insight into food technology.

Since the professional field of health food innovation management is broad, the panel feels that students could benefit from some form of specialisation in the master's programme. At present all students follow the same curriculum. The alumni and students that the panel interviewed, noted that they would have liked to have some room for an elective that enabled them to obtain more in-depth knowledge and insights in, for instance, technology, finance or sustainability. The panel advises to develop such elective courses.

As of 2015-16, some of the courses in the first year of the programme run parallel instead of consecutive. This change was made to make the first year more challenging, in response to course evaluations which indicated that some students found the courses in the domain of their bachelor's degree insufficiently challenging. By scheduling some of the courses parallel in the same period, these students could focus more on the course in which they had a less advanced level. The panel was not completely convinced that this measure indeed makes the programme more challenging, but ascertained that the parallel scheduling did not cause any problems for the weaker students either. The panel found that although the study load for students varies somewhat from period to period, the curriculum does not present any bottlenecks, as confirmed by the progression and completion rates. Students told to the panel that they are happy with the supervision and guidance that they receive and emphasised that teaching staff, study adviser and management are always available to help and answer questions or discuss improvements to the programme.

#### Teaching staff

The majority of HFIM's teaching staff are employed by FHML or other faculties at Maastricht University (n=22). 82% of the staff employed at UM hold a PhD degree and 82% has obtained the UTQ. A small part of the teaching staff are hired from other universities or companies (n=6). These 'external' staff all have academic degrees (mostly PhD's) and work as (assistant) professors, senior lecturers or managing directors. New teaching staff, both from UM and external staff, are required to follow a number of introductory courses on the educational approach of PBL before they start teaching in the HFIM programme. The panel established that the quality and quantity of teaching staff are sufficient, but advises to monitor the workload of staff carefully, as some of them indicated that they expect that their workload will rise with the expected increase in student numbers. The panel acknowledged that the staff together has a broad knowledge of the four key research areas. However, it advises to ensure that the staff in each of the four key research areas is of sufficient size and seniority. At present the teaching in some of the research areas is done by one staff member, which can cause problems in cases of illness or resignation.

#### Admission, intake and internationalisation

Applicants with an UM bachelor's degree in Health Sciences (track Biology and Health) or Biomedical Sciences are directly admissible to the HFIM programme, all others have to complete the selection procedure. During this procedure, the applicants' knowledge about nutrition and health, motivation, proficiency in English and expectations of the programme are screened by the Board of Admissions (BoA). When the BoA has doubts about an applicant's understanding of nutrition or statistics, proficiency in English or academic skills, it can reject the application or impose additional requirements, such as the statistics summer course on Campus Venlo, a GRE-test in verbal reasoning, quantitative reasoning, critical thinking and analytical writing, or an extra assignment. Some applicants have to complete the pre-master programme, which contains courses in biology and chemistry, before they can be admitted. The panel feels that the selection and admission procedure is well organised and effective. It suggests including a course in academic writing in the pre-master programme, because the students and alumni that the panel interviewed noted that the level of academic writing between students from different countries of origin varies.

In the current academic year, 55 students have started the programme, some 15 more than the average intake in previous years. The student population demonstrates diversity in previous education, ranging from academic bachelors to applied bachelors from Universities of Applied Sciences in different fields, as well as in nationality. Like the HFIM management, the panel feels that the diversity in the students' backgrounds is an advantage given the multidisciplinary nature of the field of health food innovation management. Also, the panel established that, despite the diversity in the students' previous education, so called 'free-riding' in group assignments (letting others do the work), is not a problem in this master's programme. It feels that the strict selection and admission procedures had a positive effect regarding this matter.

Although some 25% of the student population of the programme is not Dutch, the panel understood that the programme is still working on their vision and policy with regard to internationalisation. It is the programme's ambition to improve HFIM's international profile, not only to attract more international students, but also with regard to the content of the curriculum, which will be renewed in order to connect to worldwide challenges in food and health, such as malnutrition and the food supply chain. The panel is enthusiastic about these plans and also encourages the programme to continue integrating subject knowledge about international health food technologies or regulation in different national contexts into the courses. In addition, the panel feels that the international composition of the student population and the PBL-system provide great opportunities to translate competences such as intercultural awareness and communication into the general intended learning outcomes of the programme.

#### Considerations

The panel concluded that the curriculum is carefully designed; the objectives of all courses are well described in the study guide. The relevant problems that are used in the courses allow students to apply theoretical knowledge to actual situations, as is appropriate for PBL. The content of the different modules provide coherence to the programme and the courses in the two year programme are well aligned. The curriculum strikes a good balance between the acquisition of theoretical knowledge and training in skills such as project management, applied statistics and academic writing. HFIM's orientation on the professional field is clearly demonstrated by the presence of the Health and Food Venture Lab.

The panel feels that the element of food technology should be addressed more prominently in the course *Food and Ingredient Categories, Carrier Systems and Food Technology*. It advises to ensure that students are more adequately facilitated to gain insight into food technology. Since the field of health food innovation management is broad, the panel feels that students can benefit from some specialisation in the master's programme. It therefore advises to develop elective courses in technology, finance or sustainability.

The panel found that the curriculum does not present any bottlenecks, as indicated by the progression and completion rates. It also established that the provision of information and the supervision and guidance that students receive is adequate. The quality and quantity of teaching staff is sufficient, but the panel advises to ensure that the staff in each of the four key research areas is of sufficient size and seniority.

The panel feels that the selection and admission procedure is well organised and effective. With the international composition of the student population and the PBL-system, the panel sees great potential for the internationalisation of the programme's intended learning outcomes, in terms of both knowledge and skills or competences.

The panel concludes that the curriculum, the teaching-learning environment, and the quality of staff and supervision enable students to achieve the intended learning outcomes.

#### Conclusion

Master's programme Health Food Innovation Management: the panel assesses Standard 2 as 'satisfactory'.

#### Standard 3: Student assessment

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

#### **Explanation:**

The student assessments are valid, reliable and sufficiently independent. The requirements are transparent to the students. The quality of interim and final examinations is sufficiently safeguarded and meets the statutory quality standards. The tests support the students' own learning processes.

#### **Findings**

System of assessment

The contextual learning, constructive learning and collaborative learning that are central to the PBL-approach also apply to the assessment in the HFIM programme. Various assessment instruments are used to test the achievement of the intended learning outcomes; knowledge and the application of knowledge, for instance, are tested in assignments and the thesis, whereas professional behaviour is assessed in projects. The programme coordinator supervises the assessment programme. He initiates annual meetings with the course coordinators in which, for instance, alignment between



courses and the form of assessment, the use of the appropriate formative and summative assessment and thesis guidance and assessment are discussed. The course coordinators are responsible for writing an assessment plan for their course and for designing the tests in their course in consultation with the teaching staff. The panel understood that all coordinators are required to have obtained their University Teaching Qualification (UTQ) and that the quality of the tests is safeguarded in a PDCA cycle. In the planning phase, the course assessment plans are written and presented to the BoE for advice and approval. Subsequently, the assessment is executed by qualified examiners (do), assessed with the help of answering models and assessment forms and evaluated (check). In the final phase (act), assessment plans and exams are improved and updated if necessary following insights from evaluations or advice of the BoE.

During the site visit, students noted that the various forms of assessment are suitable for the respective courses and that the provision of information about the assessment in each course is appropriate. The results of course evaluations confirm this. Each course has an assessment plan that is carefully executed and monitored by the BoE and the development of an assessment plan for the entire programme is an ambition for the near future. The same goes for setting-up a 'Campus Venlo taskforce for assessment', which will systematically review the tests in each component of the curriculum. The assessment plan for the entire programme and the taskforce will be designed to the example of those that are active in the Health programmes at UM . The panel is confident that the validity and quality of the examinations are adequate and sufficiently safeguarded. It expects that the taskforce and the HFIM assessment plan will improve it further.

The reliability, independency and transparency of assessment are ensured by the use of answer keys, standardised assessment forms and by appointing multiple examiners for internship and thesis. During the internship, students will carry out the research that forms the basis for the master's thesis. The assessment of internship and thesis has different phases and actors. After their research proposal is approved by the internship coordinator and the UM faculty supervisor, the students start their internship. The practical work during the internship, such as the use and care of equipment and work in a team, as well as the theoretical knowledge that is needed to carry out the research, are graded by the UM supervisor – in consultation with the daily supervisor at the host institution - in an interim phase and after completion (final grade). The interim evaluation 'on track' or 'not on track' does not influence the final grade, but serves as formative feedback that can help the student to reflect on and adjust his/her own learning process. The thesis research is assessed by the UM supervisor and a second examiner, normally an UM staff member, occasionally an external expert that is approved as an examiner by the Board of Examiners (BoE). The final grade consists of the final grade of the internship on the one hand, and form and content of the thesis, on the other. When the marks given by first and second examiner differ more than 2 points, the mean of the two grades will be the final grade, or a third examiner can be requested by BoE or student.

The panel feels that the assessment of internship and thesis are well organised and that the system of assessment sufficiently safeguards the reliability, independency and transparency of the assessment. The panel read a sample of 15 theses and generally agreed with the grades given by the examiners. The standardised assessment forms that are used for the grading of the theses indicate the weight of each component of internship and thesis project on the final grade, which is clear, but the panel felt that the transparency of the grading could be improved by describing the calculation of the pluses and minuses for each component on the assessment form. In addition, because of the interdisciplinary nature of the programme and the limited number of staff at Campus Venlo, the panel suggests to set-up a permanent pool of second examiners - not only from Campus Venlo, but also from UM - from each of the four key research areas, who use the same criteria and the same standards for the assessment of research projects in each of the four domains, from law to toxicology. The panel expects that such a permanent pool of second examiners will further improve the independency and reliability of the grading. It was pleased to hear that the set-up of such a pool of second examiners has already discussed in the management team.

#### Board of Examiners (BoE)

The BoE for Biomedical Sciences at UM is responsible for safeguarding of the quality of assessment and the achievement of the intended learning outcomes in the HFIM programme at Campus Venlo. The BoE sets the Rules and Regulations for Examinations (RR), appoints examiners and determines whether students meet the conditions of the Education and Examination Regulations. The BoE has an active role in the PDCA cycle of assessment: it checks whether the assessment plans of each course are in line with quality criteria and the RR and advises on improvements before approving the plans. The BoE can also withdraw the appointment of an examiner in case of negligence. When there is more than 2 points difference between the grades of the first and second examiner, the BoE appoints a third thesis examiner. In the annual report, the BoE communicates the points of improvement to the programme's management team.

The panel concludes that the BoE sufficiently safeguards the quality of assessment and thus carries out its formal tasks. However, there is some room for improvement: the panel advises the BoE to continue to work on the further formalisation of its working methods and procedures for HFIM, most importantly by performing random checks of theses. Also, the panel encourages the BoE to support the institution of a permanent pool of second examiners or another measure to increase the independency and reliability of thesis grading. On the basis of the interview during the site visit, the panel is convinced that the BoE is aware of the importance of these measures. It is also confident that the BoE is able to take its professionalization a step further, because it can follow the example of the procedures that are in place for the programmes in the Health domain at UM . Finally, the panel advises to take steps to decrease the actual and metaphorical distance between the BoE, which is based in Maastricht, and the programme on Campus Venlo. In expectation of the future instalment of a BoE at Campus Venlo, the panel advises to invite a staff member from Venlo to the BoE.

#### **Considerations**

The panel concludes that assessment is taken seriously at HFIM and that the validity, reliability, independency and transparency of assessment in the programme are sufficiently safeguarded. It encourages the programme's plans to professionalise and formalise the system further. In addition, the panel suggests to appoint a permanent pool of second examiners in order to further improve the independency and reliability of the thesis assessment. On the basis of thesis sample, the panel concludes that the grading of the internships and theses is generally correct, but it feels that the transparency of the grading on the assessment forms can be improved.

The panel concludes that the BoE sufficiently safeguards the quality of assessment and the achievement of the intended learning outcomes and thus carries out its formal tasks. The panel advises to continue the further formalisation of its working methods and procedures. In addition, the panel recommends to take measures to decrease the distance between the BoE in Maastricht and the programme in Venlo.

#### Conclusion

Master's programme Health Food Innovation Management: the panel assesses Standard 3 as 'satisfactory'.

#### Standard 4: Achieved learning outcomes

The programme demonstrates that the intended learning outcomes are achieved.

#### **Explanation:**

The achievement of the intended learning outcomes is demonstrated by the results of tests, the final projects, and the performance of graduates in actual practice or in post-graduate programmes.

#### **Findings**

#### Internship and thesis projects

Together comprising 40 EC, the internship and thesis, which are spread over a period of 24 weeks, are an important component of the programme. Many of the intended learning outcomes, from application of knowledge and understanding, to critical evaluation and communication of scientific results, are demonstrated in the internship and thesis. Most students conduct their research in a company in the food and beverage industry, some do a research internship in a research lab at UM or another university in the Netherlands or abroad. Before starting their internship, the students write a research proposal which has to be approved by the UM supervisor. The thesis takes the form of a scientific article which describes the research carried out during the internship and consists of an introduction and problem statement, research objectives, methods, results, discussion and conclusions. The topics of the theses cover the entire multidisciplinary spectrum of the master's programme, ranging from studies into the impact of policy aimed at reducing added sugars intake or consumer behaviour with regard to edible seaweed to the effect of packaging on perceived healthiness.

The panel read a sample of 15 theses, with final grades ranging from 6.5 to 9 (on a 10-point scale). The best theses described original and solid research in a well-structured manner and style, whereas the theses that received lower scores showed room for improvement regarding the level of the hypotheses, consistency of the results and conclusions or depth of the analysis. The panel established that the theses in the sample are of sufficient quality for an academic master's programme; they indicate that students are able to complete a full research project from start to finish. In the last years, the results of a number of master's theses were published in scientific journals or presented on posters at international scientific conferences. The panel concludes that the students achieve the programme's intended learning outcomes.

#### The performance of graduates

A recent analysis of the careers of HFIM alumni demonstrated that nearly all graduates found a job on an appropriate level in a relevant sector and that the unemployment rate is low (under 3%). Graduates work in the food and beverage industry (for instance at Unilever and Nestlé), for contract research organisations such as TNO, in international associations and organizations, in market research communication agencies, as researchers at universities or they started their own company. The alumni take jobs in the four key research areas associated with the HFIM programme: 1. Nutrition and health research; 2. Consumer sciences; 3. National and international food regulations 4. Entrepreneurship and Business Development. The panel established that the HFIM programme prepares graduates well for their future careers.

During the site visit, the panel met a group of HFIM alumni who embodied the graduate profile that the programme envisions: they are multidisciplinary academic professionals who are able to transfer scientific knowledge into actual food innovations and thus intermediate between research, industry and market. The panel enjoyed meeting these young knowledge brokers, who facilitate the transfer and exchange of knowledge from where it is abundant to where it is needed.

#### **Considerations**

The panel established that the theses in the sample are of sufficient quality for an academic master's programme; they indicate that students are able to complete a full research project from start to finish. HFIM alumni perform well on the job market; nearly all graduates found a job on the appropriate level in a relevant sector. The programme succeeds in educating multidisciplinary academic professionals who are able to transfer scientific knowledge into actual food innovations and thus intermediate between research, industry and market. The panel concludes that all intended learning outcomes are achieved.



#### Conclusion

Master's programme Health Food Innovation Management: the panel assesses Standard 4 as 'satisfactory'.

#### **GENERAL CONCLUSION**

The panel assesses Standard 2, 3 and 4 as 'satisfactory' and Standard 1 as 'good'.

#### Conclusion

The panel assesses the *master's programme Health Food Innovation Management* as 'satisfactory'.

#### **APPENDICES**



#### APPENDIX 1: DOMAIN-SPECIFIC FRAMEWORK OF REFERENCE

Health and food innovation have become main driver for new product development and communication strategies in the food and beverage industry. Analysis of the reactions in the market to new products that are communicated to be healthy and/or to have a specified health benefit, has led to the insight that there are 4 domains that act in concert and mutually determine the degree to which a new products or services will be successful. Basically, the way in which the information is sent to consumers and is received by them, is influenced by these 4 domains: 1) the food industry marketing, 2) the opinion of health professionals, 3) the legal boundaries, 4) the consumer perceptions/mouth to mouth opinions. Understanding these 4 domains and the overarching needs of sustainability and fair trade are essential for an appropriate estimation of the chance of market success of any innovative idea.

For this reason educational programmes in health and food innovation embrace a multidisciplinary character which covers the following areas of science:

- Health Sciences/Biomedical Sciences: addressing nutrition and health research,
- Consumer Sciences: addressing consumer perception and decision cues
- National and International Food Regulations: setting legal boundaries to operate
- Entrepreneurship and Business Development: from idea to market.

#### A multidisciplinary teaching program

Bridging nutrition and health expertise into research, development, regulator/food law functions, public affairs and marketing/sales functions is a prerequisite to make operations in the world of healthy foods and beverages successful. The aim of educational programmes is to develop the required insights and skills that will help students to fulfill demanding roles in the health food arena as well as to set a solid base for further growth into research or commercial leadership functions in industry, governmental and non-governmental organizations. Aspects from the following disciplines play a role in the matters to be taught: physiology, biochemistry, nutrigenomics, metabolomics, genetics, epigenetics, pharmacology, epidemiology, methodology, statistics, food science, food technology, law, entrepreneurship, finance, intellectual properties, social science, psychology, marketing.

In addition, a broad interaction with key-players from the food and beverage industry, operating in the Health Foods space, will contribute significantly to fulfill final qualifications that actual job requirements with a high biomedical and business innovation character in today's market.

A MSc. programme aims to provide students with the following required insights:

#### 1. Biomedical research on nutrition and health

- Basic research on the effects of food components on the etiology of disease may lead to new insights and innovative ideas for new product development (NPD) in the food arena.
- The implementation of basic research findings in applied will lead to insights on the efficacy of dietary measures to impact on health and disease.
- Observational studies may provide ideas about the link between certain food/nutrient exposures and incidence of disease. Such studies justify the design of controlled intervention trials to determine the effects of dietary recommendations or supplementations, in order to substantiate intervention effects
- Understanding possibilities and pitfalls of a number of clinical intervention models and the use of validated biomarkers that are commonly used to study the effects of dietary components on human health status is a prerequisite for determining the targets, timelines and expected outcomes of studies



#### 2. Consumer sciences

• For the selection of appropriate development targets a selection should be made based on specific criteria such as size of population affected, level of consumer knowledge/understanding/trends/behavior, food fit, sensory factors and preferences and competitive landscape co-affecting consumer choices. In depth consumer insights and market research falls into place here.

#### 3. Food market and related industrial developments

- The health foods market, health concerns, trends and innovations. How does this market look like? What are the key-players, what are limitations and pitfalls to innovation? Which functional ingredients are being used in what types of food/drink to achieve which benefits to the consumer? Essentials of digestion, absorption, distribution and metabolism of selected food components are essential to understand their potential impact on health management and disease risk reduction:
- New food and nutrient isolation/extraction and processing techniques have led to the development of new ingredients and new types of foods.
- Ingredient modification techniques have allowed the design of food ingredients that did not exist as such previously and can now be developed as novel foods.

#### 4. National and international food regulations

• With the development of the worldwide web and the growing interregional trade, products find their way all over the world. Insight in differences and communalities in food law and local regulation on food safety and health claims is essential to avoid project failures.

Related to the specific domains that fundament the programme, the students will:

- be able to identify trends and developments in the 4 area's listed above.
- be able to merge biomedical and consumer sciences data in innovative ideas and concepts that are economically attractive.
- have insights and skills to help develop scientifically sound studies addressing health benefits, consumer behaviour and market developments
- be able to translate scientific evidence into scientifically sound product benefits and understandable consumer benefit claims.
- be able to bridge research and development functions with commercial functions.



#### APPENDIX 2: INTENDED LEARNING OUTCOMES

After graduation, students meet the following final qualifications, in line with the 'Dublin Descriptors':

- 1. Knowledge and understanding
- a. A broad understanding of the business of healthy eating;
- b. Essentials of digestion, bioavailability, distribution and metabolism of selected food components on health management and disease risk reduction related to Heart Health, Gut Health, Weight Management, Diabetes, Personalized Nutrition, Vitality and Healthy Ageing, Cognition and Mental Performance, Sports nutrition and Clinical Nutrition;
- c. In-depth insights in consumer health concerns, public and industrial targets for health management, market structure and its developments;
- d. Comprehension of various Food Categories, among which Dairy, Bakery, Beverage, Confectionary, Fruit and Vegetable and Meat as potential 'carrier systems' for health ingredients;
- e. Knowledge on food ingredient classes such as carbohydrates, fibres, lipids, proteins, antioxidants and bioactives;
- f. Insight in technical opportunities to improve taste, texture and composition profile;
- g. Comprehension of the pathobiology and etiology of chronic metabolic disorders in which lifestyle and diet play a significant role, especially obesity, diabetes, cardiovascular disease and irritable bowel syndrome;
- h. Comprehension of the role of epidemiology in assessing 'Diet-Health' relationships;
- i. Insights in emerging technologies that impact on the food production process and the opportunities for innovation in the area of food composition, taste, texture and mouth-feel;
- j. Understand the drivers and processes of biosciences based food innovation, business development and entrepreneurship;
- k. Understand the triggers of food innovation and the key challenges of translating perceived opportunity into a marketable product;
- I. Appreciate the consequences of business modelling choices on the feasibility and value promise of food innovations and food ventures;
- m. Insights in research methods used to understand the market and its dynamics, such as consumer desires, health concerns, consumer perceptions and behaviour;
- n. Appreciation of food and consumer regulatory environment in the EU: functional foods, novel foods, GM food and feed, health and nutrition claim (as regards to the latter: plus regulatory environment of USA, China, Brazil, India);
- o. Understand environmental and socio-economical influences on food consumption;
- p. In-depth knowledge and critical understanding of the theoretical and practical aspects of EU food regulation;
- q. Critical analysis of the challenges that the EU currently faces in regulating food issues, in particular regarding market vs non market values and scientific vs other legitimate concerns regarding food regulation;
- r. Introduction into World Trade Organisation law and the Sanitary and Phytosanitary Measures (SPS Agreement);
- s. Knowledge about relevant biomedical analytics and technologies such as body composition analysis, stable isotope methods, in vitro digestion models, cell line models, nutrigenomics, metabolomics and sensory test models;
- t. Insight in clinical trial design and its role related to impact on the degree of health benefit evidence;
- u. Insight in the design and role of meta-analyses.
- 2. Application of knowledge and understanding
- a. Read, interpret and translate scientific data into short information that is understandable by individuals with a non-technical background such as managers in commercial functions, sales men and lawyers. Yet, this "laymen level of information" should be scientifically correct;
- b. Critical evaluation of scientific literature;
- c. Critical appraisal of new benefit claims in the light of scientific evidence;



- d. Translate scientific data to industrially relevant input and concepts;
- e. Able to apply project management methods to the development of novel technology, foods or services;
- f. Able to develop a business plan for an innovative product or services based on market and competitive research, the regulatory environment, operational analysis and an assessment of financial needs and the expected return.

#### 3. Judgment

- a. Critical evaluation of the scientific literature in terms of ranking of the degree of evidence based on the design and methodology of the clinical studies;
- b. Critical evaluation of scientific literature in terms of drawing conclusions that are supported by "the weight of the evidence" and that can survive the challenge of critics;
- c. Critical assessment of the chance of success of desired benefit claims in the light of the regulatory environment in the area of planned product launch;
- d. Critical overall early assessment of the potential likelihood of commercial success of innovative ideas in the light of technical, business and regulatory feasibility;
- e. Critical assessment of practical problems (and their solutions) that relate to food innovation.

#### 4. Communication

- a. Capable to communicate scientific information in a non-scientific environment, to the general population and its sub-populations;
- b. Capable to discuss scientific and regulatory aspects of new ideas/concepts with commercial functions in the industry and with spoke persons of the regulatory and scientific governmental authorities;
- c. Able to report scientific study results in an understandable way in writing as well as in presentations;
- d. Able to discuss opportunities and plans for food related business opportunities with scientists, IP experts, marketeers, food engineers and investors.

#### 5. Learning skills

- a. Understanding the basics required for the implementation, execution and coordinating of scientific nutritional studies;
- b. Integrate new insights from the disciplines of life sciences or agro/food technology with economics and management, to drive science-based food innovation;
- c. Capable of keeping up to date with scientific literature, using the latest internet-based tool;
- d. Is able to learn from own and team performance;
- e. Is able to learn from negative experiences and failures;
- f. Skilled in project management;
- g. Able to build a business case and establish an appropriate business plan.

#### APPENDIX 3: OVERVIEW OF THE CURRICULUM

	Year 1						
16 weeks	Consumer Concerns, Health Targets and Market Segment HFV1001 – 12 EC	Biosciences Innovation, Entrepreneurship and New Ventures HFV1002 – 13 EC					
8 week s	Consumer Understanding and Behaviour  HFV1003 – 10 EC						
12 weeks	Food and Ingredient Categories, Carrier Systems & Food Technology  HFV1004 – 10 EC	Methods and Analytics  HFV1005 – 10 EC					
4 Wk s	Skills Training Project Management HFV1006 – 5 EC						
	Year 2						
8 weeks	Health Foods, Scientific and Regulatory Environment  HFV 2001 – 10 EC						
8 weeks	Skills Training Health Food & Food Venture Lab  HFV2001 – 10 EC						
24 weeks	Internship a						

#### APPENDIX 4: PROGRAMME OF THE SITE VISIT

Maandag 23 april 2018					
9.00	9.30	Aankomst en welkom			
9.30	12.00	Voorbereidend overleg en inzien documenten			
12.00	12.30	Lunch			
12.30	13.15	Gesprek met inhoudelijk verantwoordelijken Health  1. Mirjam oude Egbrink – Wetenschappelijk Directeur Onderwijsinstituut FHML  2. Jascha de Nooijer – Opleidingsdirecteur domein Health  3. Ruud Kempen – Coördinator B-GW  4. Leo Schouten – Coördinator EPI  5. Aggie Paulus – Coördinator HPIM  6. Francine Schneider – Coördinator HEP  7. IJmert Kant – Coördinator WHC			
13.15	13.30	Overleg panel			
13.30	14.00	Gesprek met studenten B-GW (N=6)			
14.00	14.30	Gesprek met docenten B-GW (N=6)  1. Ruud Kempen – Coördinator B-GW			
14.30	14.45	Overleg panel			
14.45	15.15	Gesprek met studenten EPI (N=6)			
15.15	15.45	Gesprek met docenten EPI (N=6)  1. Leo Schouten – Coördinator EPI			
15.45	16.00	Overleg panel			
16.00	16.30	Gesprek met studenten HPIM (N=6)			
16.30	17.00	Gesprek met docenten HPIM  1. Aggie Paulus – Coördinator HPIM			
17.00	17.15	Overleg			
17.15	17.45	Gesprek met alumni EPI & HPIM (N=6) <sup>1</sup>			
18.00	20.30	Diner			
	24 april				
9.00	10.00	Voorbereidend overleg en inzien documenten; spreekuur (9.30-10.00)			
10.00	10.30	Gesprek met studenten HEP en WHC (N=6)			
		Gesprek met studenten HEP en WHC (N=6)  Gesprek met docenten HEP en WHC  1. Francine Schneider – Coördinator HEP  2. IJmert Kant – Coördinator WHC			
10.00	10.30	Gesprek met docenten HEP en WHC  1. Francine Schneider – Coördinator HEP			
10.00	10.30	Gesprek met docenten HEP en WHC  1. Francine Schneider – Coördinator HEP  2. IJmert Kant – Coördinator WHC			
10.00 10.30 11.00	10.30 11.00	Gesprek met docenten HEP en WHC  1. Francine Schneider – Coördinator HEP  2. IJmert Kant – Coördinator WHC  Overleg panel			
10.00 10.30 11.00 11.15	10.30 11.00 11.15 11.45	Gesprek met docenten HEP en WHC  1. Francine Schneider – Coördinator HEP  2. IJmert Kant – Coördinator WHC  Overleg panel  Gesprek met alumni HEP en WHC (N=6)			
10.00 10.30 11.00 11.15 11.45	10.30 11.00 11.15 11.45 12.15	Gesprek met docenten HEP en WHC  1. Francine Schneider – Coördinator HEP  2. IJmert Kant – Coördinator WHC  Overleg panel  Gesprek met alumni HEP en WHC (N=6)  Gesprek met Opleidingscommissie Health			
10.00 10.30 11.00 11.15 11.45 12.15	10.30 11.00 11.15 11.45 12.15 13.00	Gesprek met docenten HEP en WHC  1. Francine Schneider – Coördinator HEP  2. IJmert Kant – Coördinator WHC  Overleg panel  Gesprek met alumni HEP en WHC (N=6)  Gesprek met Opleidingscommissie Health  Overleg en lunch			
10.00 10.30 11.00 11.15 11.45 12.15 13.00	10.30 11.00 11.15 11.45 12.15 13.00 13.45	Gesprek met docenten HEP en WHC  1. Francine Schneider – Coördinator HEP  2. IJmert Kant – Coördinator WHC  Overleg panel  Gesprek met alumni HEP en WHC (N=6)  Gesprek met Opleidingscommissie Health  Overleg en lunch  Gesprek Examencommissie Health			
10.00 10.30 11.00 11.15 11.45 12.15 13.00 13.45	10.30 11.00 11.15 11.45 12.15 13.00 13.45 14.30	Gesprek met docenten HEP en WHC  1. Francine Schneider – Coördinator HEP  2. IJmert Kant – Coördinator WHC  Overleg panel  Gesprek met alumni HEP en WHC (N=6)  Gesprek met Opleidingscommissie Health  Overleg en lunch  Gesprek Examencommissie Health  Overleg panel (afronden domein Health)  Gesprek met inhoudelijk verantwoordelijken HFIM (Venlo)  1. Mirjam oude Egbrink – Wetenschappelijk Directeur Onderwijsinstituut FHML  2. Aalt Bast – Decaan Venlo Campus			
10.00 10.30 11.00 11.15 11.45 12.15 13.00 13.45 14.30	10.30 11.00 11.15 11.45 12.15 13.00 13.45 14.30 15.15	Gesprek met docenten HEP en WHC  1. Francine Schneider – Coördinator HEP  2. IJmert Kant – Coördinator WHC  Overleg panel  Gesprek met alumni HEP en WHC (N=6)  Gesprek met Opleidingscommissie Health  Overleg en lunch  Gesprek Examencommissie Health  Overleg panel (afronden domein Health)  Gesprek met inhoudelijk verantwoordelijken HFIM (Venlo)  1. Mirjam oude Egbrink – Wetenschappelijk Directeur Onderwijsinstituut FHML  2. Aalt Bast – Decaan Venlo Campus  3. Freddy Troost – Coördinator HFIM			
10.00 10.30 11.00 11.15 11.45 12.15 13.00 13.45 14.30	10.30 11.00 11.15 11.45 12.15 13.00 13.45 14.30 15.15	Gesprek met docenten HEP en WHC  1. Francine Schneider – Coördinator HEP  2. IJmert Kant – Coördinator WHC  Overleg panel  Gesprek met alumni HEP en WHC (N=6)  Gesprek met Opleidingscommissie Health  Overleg en lunch  Gesprek Examencommissie Health  Overleg panel (afronden domein Health)  Gesprek met inhoudelijk verantwoordelijken HFIM (Venlo)  1. Mirjam oude Egbrink – Wetenschappelijk Directeur Onderwijsinstituut FHML  2. Aalt Bast – Decaan Venlo Campus  3. Freddy Troost – Coördinator HFIM  Overleg panel  Gesprek met studenten HFIM (Venlo) (N=6)  Gesprek met docenten HFIM (Venlo) (N=6)			
10.00 10.30 11.00 11.15 11.45 12.15 13.00 13.45 14.30	10.30 11.00 11.15 11.45 12.15 13.00 13.45 14.30 15.15	Gesprek met docenten HEP en WHC  1. Francine Schneider – Coördinator HEP  2. IJmert Kant – Coördinator WHC  Overleg panel  Gesprek met alumni HEP en WHC (N=6)  Gesprek met Opleidingscommissie Health  Overleg en lunch  Gesprek Examencommissie Health  Overleg panel (afronden domein Health)  Gesprek met inhoudelijk verantwoordelijken HFIM (Venlo)  1. Mirjam oude Egbrink – Wetenschappelijk Directeur Onderwijsinstituut FHML  2. Aalt Bast – Decaan Venlo Campus  3. Freddy Troost – Coördinator HFIM  Overleg panel  Gesprek met studenten HFIM (Venlo) (N=6)  Gesprek met docenten HFIM (Venlo) (N=6)			

 $<sup>^{1}</sup>$  De alumni van de bachelor Gezondheidswetenschappen zullen nu veelal masterstudenten zijn. Die kunnen we uitnodigen bij de studentengroep van de masters.



18.00	20.30	Diner				
	•					
Woensda	Woensdag 25 april 2018					
09.00	09.30	Overleg panel				
09.30	10.00	Gesprek met Opleidingscommissie HFIM (Venlo)				
10.00	10.30 Overleg panel					
10.30	11.15	Gesprek met Examencommissie Biomedische Wetenschappen HFIM (Venlo)				
11.15   13.00   Voorbereiden eindgesprekken management Health & HFIM Venlo (included)		Voorbereiden eindgesprekken management Health & HFIM Venlo (inclusief lunch)				
13.00	13.45	Gesprek met management Health  1. Mirjam oude Egbrink – Wetenschappelijk Directeur Onderwijsinstituut FHML  2. Jascha de Nooijer – Opleidingsdirecteur domein Health  3. Ruud Kempen – Coördinator B-GW  4. Leo Schouten – Coördinator EPI  5. Aggie Paulus – Coördinator HPIM  6. Francine Schneider – Coördinator HEP  7. IJmert Kant – Coördinator WHC				
13.45	14.00	Overleg panel				
14.00	14.45	Gesprek met management HFIM (Venlo)  1. Mirjam oude Egbrink – Wetenschappelijk Directeur Onderwijsinstituut FHML  2. Aalt Bast – Decaan Venlo Campus  3. Freddy Troost – Coördinator HFIM				
14.45	16.45	Opstellen voorlopige bevindingen				
16.45	17.15	Mondelinge rapportage voorlopige bevindingen Health en HFIM (Venlo) Locatie: Tongerenzaal (UNS40), begane grond				
17.30	18.30	Receptie Drielandenpunt UNS40				

# APPENDIX 5: THESES AND DOCUMENTS STUDIED BY THE PANEL

Prior to the site visit, the panel studied 15 theses of the master's programme Health Food Innovation Management. Information on the selected theses is available from QANU upon request.

During the site visit, the panel studied, among other things, the following documents (partly as hard copies, partly via the institute's electronic learning environment):

#### **General information**

- Overview business trips 2018 (Business Committee Isa Umami)
- Overview internships/placements 2018, 2nd year HFIM students
- Overview Alumni HFIM

Agenda and minutes Campus Venlo Board of Studies 2017

Annual report Board of Examiners Biomedical Sciences 2016-2017 (18 januari 2018)

### Course material, assessment material and information about quality assurance for 3 courses:

#### Consumer Concerns, Health Targets and Market Segments 2017-2018 (HFV1001)

#### Course:

- Course book
- Tutor instructions
- Lectures

#### Course Assessment:

- Assessment plan
- Test of 18 December 2017
- Answer-key test of 18 December 2017
- Example of a filled-in and reviewed test of 18 December 2017

#### Quality Assurance:

Course evaluation

#### Consumer Understanding and Behaviour 2017-2018 (HFV1003)

#### Course:

Course book

#### Course Assessment:

- Assessment plan
- Test of 1 March 2018
- Answer-key test of 1 March 2018
- Example of a filled-in and reviewed test of 1 March 2018

#### Quality Assurance:

Course evaluation

#### Health Foods, Scientific and Regulatory Environment 2017-2018 (HFV2001)

#### Course:

- Course book
- Tutor instructions

#### Course Assessment:

- Assessment plan paper
- Instructions paper
- Questions paper
- Example of a filled-in and reviewed paper

#### Quality Assurance:

Course evaluation

