Assessment report
Limited Framework Programme Assessment

Master Security and Network Engineering

University of Amsterdam

Contents of the report

1. Executive summary

In this executive summary, the panel presents the main considerations which led to the assessment of the quality of the Master Security and Network Engineering of University of Amsterdam. The programme was assessed according to the standards of the limited framework, as laid down in the NVAO Assessment framework for the higher education accreditation system of the Netherlands.

The panel regards the organisation of the programme to be appropriate. Programme management is considered by the panel to be both very skilled and very committed.

The panel notes programme management adequately responded to the recommendations of the previous external assessment panel.

The panel considers the programme to be very solid and the programme objectives to be valid and sound. The programme clearly trains engineers in this domain. The programme objectives include technical knowledge and skills, research skills, professional skills, and ethical and societal awareness. The programme objectives are aligned with international frameworks. Although programme management is well aware of the issue, the panel suggests to be precise about the scope of the programme. The panel advises programme management to consider offering a second programme on security and network modelling. The panel feels such a programme may be a valuable addition to the current programme. The panel appreciates the programme preparing students for positions in the professional field in this domain. The intended learning outcomes of the programme conform to the programme objectives and meet the master level requirements.

The panel agrees with the reason programme management has given for the English name of the programme and English as the language of instruction.

The number of students enrolling in the programme is adequate and rising. The panel feels the programme copes appropriately with these rising numbers. The admission requirements and the admission procedures are sound and are well-adjusted to the challenging nature of the programme.

The panel considers the curriculum to be solid and to adequately mirror the intended learning outcomes. The courses offer students both theoretical knowledge and insights and practical skills. The curriculum is balanced in terms of the study of networking and security. The panel appreciates the colloquia, allowing students to go in-depth into specific topics. The scientific part of the curriculum is satisfactory, but not very extensive. Ethical issues are covered up to standard. Business organisations aspects are covered as well. Although the programme is being kept up-to-date adequately, the panel would like to emphasise the importance of keeping abreast of current trends. The panel appreciates the research projects, but advises to reflect upon the set-up of these and to consider the option of one instead of two projects.

The lecturers in the programme are regarded by the panel to be experts in this domain. Their educational capabilities are up to standard as well, as proven by the high proportion of BKO-

certified lecturers. The panel regards the staff to be very committed and to work together very effectively. The panel notes the programme to be largely dependent upon a limited number of key staff members. This situation makes the programme vulnerable. The panel therefore advises to recruit more lecturers and more lab teachers, and to have a solid human resource policy for lab teachers in place. In case the programme would want to grow further, these staff issues would have to be resolved first.

The panel is impressed about the educational concept and the teaching methods of the programme. Students are very intensively guided by lecturers and lab teachers and work together productively. As a result, students manage to acquire knowledge and skills at a very high pace. Although the study load is high, the educational concept and study methods enable students to keep the study load manageable. The drop-out rates and student success rates are very favourable both for full-time students and part-time students. The panel notes the student evaluation results to be rewarding to very rewarding on nearly all aspects of the programme.

The panel approves of the examinations and assessment rules and regulations of the programme, these being in line with University and Faculty policy guidelines. The position and responsibilities of the Examinations Board are up to standard. The measures taken by programme management and the Examinations Board promote the validity, reliability and transparency of the examinations and assessments. The panel appreciates, among others, draft examinations being peer reviewed and examination assessments and grades being discussed among examiners. The panel also welcomes the inspection of course dossiers, examinations and research projects by the Examinations Board.

The examination methods for the courses are in line with the course contents. The measures to counter free-riding by students in group projects are appropriate. The panel regards fraud and plagiarism regulations to be adequate.

The supervision and assessment procedures for the final research project are regarded by the panel to be up to standard. The projects are well-organised and strictly monitored by the coordinating lecturer. The projects' assessments are conducted very reliably, involving two examiners for the written reports and the broadly composed committee of examiners for the oral defence. As a means to further improve the project assessments, the panel proposes to assess these in a more consistent manner, for instance by adopting assessment rubrics.

The course examinations are up to standard. The final research projects meet the intended learning outcomes. The panel did not assess any of the projects to be unsatisfactory. The grades awarded by programme examiners reflect the projects' quality. The projects show students being capable of independent work in the programme domain.

The panel welcomes programme management having given students ample opportunities to prepare for the professional field.

The panel notes the career perspectives of programme graduates to be very good, although the number of graduates proceeding to PhD trajectories is quite limited.

The panel which conducted the assessment of the Master Security and Network Engineering of University of Amsterdam assesses this programme to meet the standards of the limited framework, as laid down in the NVAO Assessment framework for the higher education accreditation system of the Netherlands, judging the programme to be positive. Therefore, the panel recommends NVAO to accredit this programme.

Rotterdam, 17 April 2020

Prof. dr. ir. H.J. Sips   Drs. W. Vercouteren
(panel chair)   (panel secretary)

2. Programme administrative information

Name programme in CROHO: Master Security and Network Engineering
Orientation, level programme: Academic Master
Grade: MSc
Number of credits: 60 EC
Specialisations: No specialisations
Location: Amsterdam
Mode of study: Full-time, part-time (language of instruction: English)
Registration in CROHO: 21PK-60227

Name of institution: University of Amsterdam
Status of institution: Government-funded University
Institution's quality assurance: Approved

3. Findings, considerations and assessments per standard

3.1 Standard 1: Intended learning outcomes

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

Findings
The Master Security and Network Engineering of University of Amsterdam is a 60 EC academic master programme in the field of computer infrastructure management. The programme is offered both in full-time and part-time study modes. The full-time study mode takes one year. The part-time mode takes two years. The programme was first offered in 2003 and is now in its seventeenth year.

The programme is one of the master programmes of the Faculty of Science of the University of Amsterdam. The programme is part of the Graduate School of Informatics of the Faculty, in which all six information sciences master programmes of the Faculty have been brought together. The Faculty Board, chaired by the Dean, is ultimately responsible for this and the other programmes of the Faculty. The director of the Graduate School is responsible for the quality of this and other information sciences master programmes. The programme director, assisted by the coordinators of the two specialisations or tracks, the programme coordinator and the study advisor, is responsible for the day-to-day management of the programme. The lecturers in the programme are mostly researchers at the Informatics Institute of the Faculty. Programme quality is evaluated regularly in biweekly meetings of students and staff and through written surveys. The Programme Committee, being composed of lecturers and students, processes the results of these evaluations and advises programme management about the quality of the programme. The Examinations Board for the Exact Sciences and Information Sciences operates Faculty-wide and sets out the rules and regulations for the examinations of all Faculty programmes. The sub-Examinations Board for this programme specifically monitors the examinations and assessments of this programme.

The panel was informed about the recommendations regarding the programme by the previous external assessment panel, six years ago, as well as about the steps programme management has taken to follow up on the recommendations. Among others, the subjects of ethics and business organisation were strengthened in the curriculum, the colloquia were placed more firmly in the programme, and the proportion of BKO-certified lecturers was raised. Other significant changes were the name change from Master System and Network Engineering to Master Security and Network Engineering to more precisely reflect the contents of the programme, and the merging of the two previous specialisations into one undivided programme.

The programme is a scientific programme aiming to educate security and network engineers for positions in the professional field. Students are educated, among others, to know the operation of computers and networks, to design and implement system and network configurations, to use innovative technologies, to address security issues in systems and networks, to build systems using

Open Source Technology, to master research methods in this domain and to be familiar with ethical and juridical aspects in this domain. The programme is interdisciplinary, as students are educated in four distinct disciplines, being the security engineering, network engineering, system engineering, and business organisation disciplines. As prospective engineers, students are educated to measure the operation of systems and networks and to interpret these measurements. In addition, they are trained to take responsibility for their work and the results of their work. Students are primarily educated to enter the professional field. They normally do not proceed to PhD trajectories.

The programme objectives are in alignment with international reference frameworks, such as the job descriptions, drafted in the Systems Administrator's Guide (SAGE) and the requirements for security professionals, articulated in the National Cyber Security Agenda (NCSRA III). They are also based on input, provided by the Professional Advisory Board Information Sciences. This Board represents the professional field for the master information sciences programme of the Faculty of Science. In addition, programme management presented extensive comparisons to international reference curricula and to master programmes in this domain in the Netherlands and abroad. This programme may be said to be unique in its focus and its profile.

The objectives of the programme have been translated into the intended learning outcomes of the programme. The intended learning outcomes are precise and detailed. They include, as the main elements, insights in technological developments and scientific results in this field, knowledge of innovative techniques and skills to apply these, academic research skills, professional skills, such as problem solving skills, skills to work in teams, or communication skills, and societal, ethical and social awareness. Programme management showed the intended learning outcomes to conform to the Dublin descriptors for master programmes.

The name of the programme is in English and the language of instruction of the programme is also English. The main reason to present the programme in this language is to allow international students to enrol in this programme.

Considerations
The panel regards the organisation of the programme to be appropriate. Programme management is considered by the panel to be both very skilled and very committed.

The panel notes programme management adequately responded to the recommendations of the previous external assessment panel.

The panel assesses the programme as very solid and regards the programme objectives to be valid and sound. The programme clearly trains engineers in this domain. The programme objectives include technical knowledge and skills, research skills, professional skills, and ethical and societal awareness. The panel welcomes the programme objectives to be aligned with international frameworks. The programme, therefore, meets the international requirements of this domain. Although programme management is well aware of the issue, the panel suggests to be precise about the scope of the programme and to scrutinise subjects being added and being taken out. The panel advises programme management to consider offering a second programme on security and network

modelling (interface of security and network engineering and mathematics). The panel feels such a programme may be a valuable addition to the current programme.

The panel appreciates the programme preparing students for positions in the professional field in this domain.

The programme objectives have been adequately translated into the programme intended learning outcomes. The intended learning outcomes of the programme correspond to the Dublin descriptors for master programmes and, therefore, meet the master level requirements.

The panel agrees with the reason programme management has given for the English name of the programme and English as the language of instruction.

Assessment of this standard
These considerations have led the assessment panel to assess the programme to meet standard 1, Intended learning outcomes.

3.2 Standard 2: Teaching-learning environment

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

Findings

The number of students entering the programme was the last few years 30 students, but increased to 41 students in 2019. Most students are full-time students. The proportion of part-time students is about 20 %. The target intake is about 40 to 45 incoming students per year. Students interested to apply are informed through the programme website, and may attend twice per year the University of Amsterdam Master Day events. The programme entry requirements are bachelor degrees in computer science, (technical) informatics or related fields. In addition, students are to report proficiency in English. Applicants are required to take tests on technical knowledge, discrete mathematics and academic skills. The Admission Board decides on admission on the basis of applicants' prior education, results of the tests mentioned, and having an interview with them. The programme does not offer any pre-master programme. Applicants failing the tests may try again, having studied additional material. To accommodate rising student numbers, programme management made available extra lab facilities and recruited an extra lab teacher. Programme management notes it to be quite hard to recruit extra staff, as salaries in industry tend to be significantly higher than in university.

In a table drafted to that effect, programme management demonstrated all of the intended learning outcomes to be covered in the curriculum. The curriculum itself comprises 60 EC and takes one year or two years to complete, depending upon the study mode. The contents of the curriculum for full-time students and part-time students are the same. Their schedule, however, differs. Part-time students take one course per period, whereas full-time students take two courses per period. The curriculum is composed of mandatory courses, being eight courses and two research projects. All curriculum components have 6 EC of study load. In the research projects, students may tailor the curriculum to their preference by selecting specific topics to study. The courses cover the subjects of Open Technology, networking, and security. The courses are composed of theoretical study and practical application. Practical assignments and projects within courses are meant to process and integrate theory. Ethical issues are covered in the courses and are compulsory parts of the research projects. Students are required to include an ethical paragraph in the research projects. Supervisors screen this paragraph. The programme Ethics Committee is involved, if needed. This programme has become one of the frontrunners on ethics in the Faculty of Science. Business organisation aspects are mainly addressed in the colloquia. In order to keep the curriculum up-to-date, lecturers regularly attend conferences in this domain, guest lecturers from the field are invited to discuss their recent work and research projects, mainly done for external parties, often involve the use of new technologies.

The number of staff members lecturing in the programme are 8 persons or 4.75 full-time equivalents. Staff members are one full professor, one associate professor, lecturers, lab teachers and one engineer. Staff members cover the subjects taught in the programme. Lecturers in the

programme are researchers of the Systems and Networking Lab, one of the research groups of the Informatics Institute of the Faculty of Science. About 75 % of them are BKO-certified and about 50 % of them have PhDs.

The educational concept of the programme rests upon the conviction the best results for students in this 60 EC programme may be reached through strong group cohesion among students, students actively participating in the learning processes and students being guided intensively. The concept has been adopted to enable students to achieve steep learning curves and to reach the intended learning outcomes at the end of one year for full-time students and two years for part-time students. The study methods applied in the programme are lectures, lab sessions, and colloquia. Attendance in lectures and lab sessions is obligatory. Colloquia, guest lectures or site visits are scheduled on one particular day each week. The programme is small scale. The students-to-staff ratio of the programme is 14.5/1, calculated on the basis of 69 students and 4.75 fte of staff capacity. Students are educated and guided in lab rooms, exclusively reserved for this programme. In the lab rooms, lectures and lab sessions are scheduled. Full-time lab teachers are present to help students and assist lecturers in practical exercises. Students are required to keep logbooks in which their study progress and answers to exercises are documented. Lab teachers or lecturers provide formative assessments on the logbook notes. Lab teachers serve as student tutors, know students well and have clear views on the study progress of students. The number of hours of face-to-face education is about 18 hours per week in courses. When doing research projects, students are guided individually and are expected to work in greater autonomy. Students experience the curriculum as being challenging, but manageable. On average 65 % of the full-time students complete the programme within one year and about 93 % do so within two years. The completion rate for part-time students is on average 77 % within two years. Hardly any students drop out.

Considerations
The number of students enrolling in the programme is adequate and rising. The panel feels the programme copes appropriately with these rising numbers. The admission requirements and the admission procedures are sound and are well-adjusted to the challenging nature of the programme.

The programme intended learning outcomes are covered in the curriculum. The panel considers the curriculum to be solid and to adequately mirror the intended learning outcomes. The panel regards the courses to offer students both theoretical knowledge and insights and practical skills. The curriculum is balanced in terms of the study of networking and security. The panel appreciates the colloquia, allowing students to go in-depth into specific topics. The scientific part of the curriculum is considered by the panel to be satisfactory, but not very extensive. Ethical issues are covered up to standard. Business organisations aspects are covered as well. Although the programme is being kept up-to-date adequately, the panel would like to emphasise the importance of keeping abreast of current trends. The panel appreciates the research projects, but advises to reflect upon the set-up of these and to consider the option of one instead of two projects. This way, students may have more time to process and digest the literature on subjects.

The lecturers in the programme are regarded by the panel to be experts in this domain. Their educational capabilities are up to standard as well, as proven by the high proportion of BKO-

certified lecturers. The panel regards the staff to be very committed and to work together very effectively. The panel notes the programme to be largely dependent upon a limited number of key staff members. This situation makes the programme vulnerable. The panel therefore advises to recruit more lecturers and more lab teachers. The panel in addition recommends to put a solid human resource policy for lab teachers in place. In case the programme would want to grow further, these staff issues would have to be resolved first.

The panel is impressed about the educational concept and the teaching methods of the programme. Students are very intensively guided in the programme by lecturers and lab teachers and work together productively. As a result, students manage to acquire knowledge and skills at a very high pace and to achieve steep learning curves. Although the programme study load is high, the educational concept and study methods enable students to keep the study load manageable. The drop-out rates and student success rates are very favourable both for full-time students and part-time students. The panel notes the student evaluation results to be rewarding to very rewarding on nearly all aspects of the programme.

Assessment of this standard
These considerations have led the assessment panel to assess the programme to meet standard 2, Teaching-learning environment.

3.3 Standard 3: Student assessment

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

Findings

The programme examination and assessment rules and regulations conform to the University of Amsterdam assessment policy framework and the Faculty of Science assessment policy. The Examinations Board for the Exact Sciences and Information Sciences has the authority to monitor the quality of examinations and assessments of this programme. The Board handles student requests for exemptions, extra re-sits or complaints and deals with cases of fraud and plagiarism. The sub-Examinations Board for this programme meets regularly to address issues pertaining to the quality of the examinations and assessments of this programme.

Examination methods adopted in courses are written examinations with open questions, practical lab assignments, reports or presentations, or the combination of these. Assignments are part of lectures or practical lab sessions and are done in small groups of four students in the beginning of the programme and groups of two students in the second part of the programme. Group compositions are changed in each of the courses. As the guidance and supervision in the programme is very intensive, lecturers and lab teachers rather easily detect any free-riding among students. All assignments and written reports are checked for fraud or plagiarism by lecturers.

Students complete two research projects. Research projects are individual projects, but may in some cases be done by students in pairs. The second research project, which is completed at the end of the curriculum, is formally designated to be the final project of the programme. Students may propose topics themselves or may choose from the list presented by programme management. The coordinating lecturer, who is a full professor in the programme, reviews project proposals. Most projects are done at external organisations, but some are performed at the Systems and Networking Lab research group of the Faculty of Science. Programme management has long-standing relations with external organisations. In the project, students are guided by supervisors in external companies or at the research group. In case of problems, students may approach the coordinating lecturer. When company supervision fails, relations with the organisation may be ended. Halfway through the project, a plenary progress and feedback meeting is scheduled. The written reports about the project are assessed by two university examiners. When their assessments differ more than one point, a third examiner is invited to review the report. Students present and defend the project before the defence committee of at least two but more often four staff members. Examinations Board members are very regularly present. The defence committee is chaired by the coordinating lecturer.

Programme management and the Examinations Board have taken measures to promote the validity, reliability and transparency of examinations and assessments. Examiners are appointed by the Examinations Board. The Examinations Board regularly reviews course dossiers, examinations and research projects. Examinations with deviant grade distributions are discussed. Course descriptions are in place for courses, containing course goals and course contents, and the learning methods and

examination methods. Examinations are drafted by examiners and peer reviewed by fellow examiners. Examiners in the programme meet to discuss the assessment and the grading of the written examinations. Through the course descriptions, students are informed about the course goals and contents, examination methods applied and grading schemes. Students have the right to inspect their work.

Considerations
The panel approves of the examinations and assessment rules and regulations of the programme, these being in line with University and Faculty policy guidelines. The position and responsibilities of the Examinations Board are up to standard.

The examination methods for the courses are in line with the course contents. The measures to counter free-riding by students in group projects are appropriate. The panel regards fraud and plagiarism regulations to be adequate.

The supervision and assessment procedures for the final research project are regarded by the panel to be up to standard. The projects are well-organised and strictly monitored by the coordinating lecturer. The projects' assessments are conducted very reliably, involving two examiners for the written reports and the broadly composed committee of examiners for the oral defence. The assessment criteria adopted are relevant. The examiners substantiate the grades on the assessment forms. As a means to further improve the project assessments, the panel proposes to assess these in a more consistent manner, for instance by adopting assessment rubrics.

The measures taken by programme management and the Examinations Board to ensure the quality of the examinations and assessments are adequate and promote the validity, reliability and transparency of the examinations and assessments. The panel appreciates, among others, draft examinations being peer reviewed and examination assessments and grades being discussed among examiners. The panel also welcomes the inspection of course dossiers, examinations and research projects by the Examinations Board.

Assessment of this standard
These considerations have led the assessment panel to assess the programme to meet standard 3, Student assessment.

3.4 Standard 4: Achieved learning outcomes

The programme demonstrates that the intended learning outcomes are achieved.

Findings
The panel studied the examinations of a number of courses of the programme.

In addition, the panel reviewed fifteen final research projects of the last two years. In their projects, students are to demonstrate being able, among others, to approach, address and tackle complex problems in the programme domain in an academic way. The projects are assessed on the basis of assessment criteria, being research performed (40 %), report structure and layout (20 %), oral presentation and defence (20 %), and work done and attitude shown in the project (20 %).

In the programme, students are acquainted with developments in the professional field. Guest lecturers introduce them to current trends. Most of the research projects are performed at external organisations in the field. Every six months, programme management discusses trends in the professional field with the Professional Advisory Board Information Sciences. This Board fulfils this role for the other information sciences programmes of the Faculty as well.

In December 2019, programme management conducted a survey among programme graduates. About 45 of them completed and returned the survey. The results show graduates being generally very satisfied about the programme (average score is about 8.7/10). Over 80 % of them indicated having secured suitable employment within three months after their graduation. Most of them did so, when still studying.

Considerations
The course examinations which the panel reviewed are up to standard.

The final research projects which the panel studied meet the intended learning outcomes. The panel did not assess any of the projects to be unsatisfactory. The grades awarded by programme examiners reflect the projects' quality. The projects show students being capable of independent work in the programme domain.

The panel welcomes programme management having given students ample opportunities to prepare for the professional field.

The panel notes the career perspectives of programme graduates to be very good, although the number of graduates proceeding to PhD trajectories is quite limited.

Assessment of this standard
These considerations have led the assessment panel to assess the programme to meet standard 4, Achieved learning outcomes.

4. Overview of assessments

Standard	Assessment
Standard 1. Intended learning outcomes	Standard met
Standard 2: Teaching-learning environment	Standard met
Standard 3: Student assessment	Standard met
Standard 4: Achieved learning outcomes	Standard met
Programme	Positive

5. Recommendations

In this report, a number of recommendations by the panel have been listed. For the sake of clarity, these have been brought together below.

- To consider offering a second programme on security and network modelling.
- To recruit more lecturers and more lab teachers, as the programme now is largely dependent upon a limited number of key staff members, and to have a solid human resource policy for lab teachers in place.
- To reflect upon the set-up of the research projects and to consider the option of one instead of two research projects.
- To assess the research projects in a more consistent manner, for instance by adopting assessment rubrics.

Appendix: Assessment process

The evaluation agency Certiked VBI received the request by University of Amsterdam to support the limited framework programme assessment process for the Master Security and Network Engineering of this University. The objective of the programme assessment process was to assess whether the programme would conform to the standards of the limited framework, as laid down in the NVAO Assessment framework for the higher education accreditation system of the Netherlands of September 2018 (officially published in Stcrt. 2019 no. 3198, on 29 January 2019).

Having conferred with management of the Master Security and Network Engineering programme of University of Amsterdam, Certiked invited candidate panel members to sit on the assessment panel. The panel members agreed to do so. The panel composition was as follows:
▪ Prof. dr. ir. H.J. Sips, Professor Emeritus in Computer Science, Delft University of Technology, the Netherlands (panel chair);
▪ Prof. dr. M.P. Atkinson, FBCS, FRSE, Professor of e-Science, University of Edinburgh, United Kingdom (panel member);
▪ Dr. D.J. van den Heuvel, Managing Director Secura, the Netherlands (panel member);
▪ Dr. B. Overeinder, Managing Director NLnet Labs, the Netherlands (panel member);
▪ S.C. Jongerius BSc, student Master Applied and Industrial Mathematics, Eindhoven University of Technology, the Netherlands (student member).
On behalf of Certiked, drs. W. Vercouteren served as the process coordinator and secretary in the assessment process.

All panel members and the secretary confirmed in writing being impartial with regard to the programme to be assessed as well as observing the rules of confidentiality. Having obtained the authorisation by the University, Certiked requested the approval of NVAO of the proposed panel to conduct the assessment. NVAO have given their approval.

To prepare the assessment process, the process coordinator and management of the programme met to discuss the outline of the self-assessment report, the subjects to be addressed in this report and the site visit schedule. In addition, the planning of the activities in preparation of the site visit were discussed. In the course of the process of preparing for the site visit, programme management and the Certiked process coordinator had contact to fine-tune the process. The activities prior to the site visit were performed as planned. Programme management approved of the site visit schedule.

Well in advance of the site visit date, programme management sent the list of final projects of graduates of the programme of the most recent years. Acting on behalf of the assessment panel, the process coordinator selected fifteen final projects from this list. The grade distribution in the selection was ensured to conform to the grade distribution in the list, sent by programme management. In the selection of the final projects, both study modes of the programme were evenly represented.

The panel chair and the panel members were sent the self-assessment report of the programme. The self-assessment report addressed the standards of the NVAO Assessment framework. In this report, the student chapter was included. The appendices to the self-assessment report comprised, among others, the intended learning outcomes, curriculum overview, course descriptions, Teaching and Examination Regulations, staff overview, national student survey results, and alumni survey results. The expert panel members were forwarded a number of final projects of the programme graduates, these final projects being part of the selection made by the process coordinator. The panel members were also sent the Trained Eye document of the Certiked evaluation agency, this document being the elaboration of the NVAO Assessment framework.

A number of weeks before the site visit date, the assessment panel chair and the process coordinator met to discuss the programme self-assessment report, the procedures regarding the assessment process and the site visit schedule. In this meeting, the profile of panel chairs of NVAO was discussed as well. The panel chair was informed about the competencies, listed in the profile. The meeting between the panel chair and the process coordinator served as the briefing for panel chairs, as meant in the NVAO profile of panel chairs.

Prior to the date of the site visit, all panel members sent in their preliminary findings, based on the self-assessment report and the final projects studied, and submitted a number of questions to be put to the programme representatives on the day of the site visit. The panel secretary summarised this information, compiling a list of questions, which served as a starting point for the discussions with the programme representatives during the site visit.

Shortly before the site visit date, the panel met to go over the preliminary findings concerning the quality of the programme. During this meeting, the preliminary findings of the panel members, including those about the final projects were discussed. The procedures to be adopted during the site visit, including the questions to be put to the programme representatives on the basis of the list compiled, were discussed as well.

On 12 March 2020, the site visit took place on the University of Amsterdam campus. The site visit schedule was in accordance with the planned schedule. The schedule was as follows.
09.00 – 09.45   Faculty Board representatives and programme management
09.45 – 11.00   Programme management and core lecturers
11.15 – 12.00   Examinations Board
12.00 – 13.00   Lunch panel (closed session), with 12.00 – 12.30 Open office hours
13.00 – 14.00   Lecturers and final project examiners
14.00 – 14.30   Meeting with students in lecture hall
14.30 – 15.00   Programme Committee student, alumni, professional advisory board member
15.00 – 16.15   Deliberations panel (closed session)
16.15 – 16.30   Main findings presented by chair to programme representatives
17.00 – 17.40   Development dialogue of panel and programme management

Open office hours were communicated two weeks prior to the site visit by programme management to employees, lecturers and students. No persons presented themselves during these open office

hours. On the day of the site visit, the panel members were given the opportunity to study course material and examinations of courses, Programme Committee minutes, and Examinations Board annual reports.

In a closed session near the end of the site visit, the panel considered each of the findings, weighed the considerations and arrived at conclusions regarding the quality of the programme. At the end of the site visit, the panel chair presented in broad outline the findings, considerations, assessments and recommendations to programme representatives.

Clearly separated from the process of the programme assessment, the assessment panel members and programme representatives met to conduct the development dialogue, with the objective to discuss future developments of the programme.

The assessment draft report was finalised by the secretary, having taken into account the findings and considerations of the panel. The draft report was sent to the panel members, who studied it and made a number of changes. Thereupon, the secretary edited the final report. This report was presented to programme management to be corrected for factual inaccuracies. Programme management was given two weeks to respond. Having been corrected for these factual inaccuracies, the Certiked bureau sent the report to the University Board to accompany their request for re-accreditation of this programme.