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Master Arts and Culture (research) Maastricht University

*Report of the limited programme assessment
24 November 2021*

Utrecht, The Netherlands
February 2022
www.AeQui.nl
Assessment Agency for Higher Education

Colophon

Master Arts and Culture (research)

Maastricht University

Research Master

Location: Maastricht

Mode of study: fulltime

Croho: 60829

Result of institutional assessment: positive (expiration date 15 May 2025)

Panel

Jan Baetens, chair

Jen Southern, domain expert

Teun Zuiderent-Jerak, domain expert

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Alice Quinn Banville, student

Mark Delmartino, secretary

The panel was presented to the NVAO for approval.

The assessment was conducted under responsibility of

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Summary

On 24 November 2021 an assessment committee of AeQui visited the Research Master programme (RMA) Arts and Culture: Cultures of Arts, Science and Technology (CAST) at Maastricht University. In view of the COVID-19 pandemic, the visit took place online. CAST is an interdisciplinary programme that starts from the claim that studying the roles of the arts, science and technology is indispensable for understanding modern cultures. It provides students with the conceptual tools and methods from the interdisciplinary fields of Science, Technology and Society studies and from Humanities. For its assessment the committee has used the 2018 framework for limited programme assessment, as well as the additional criteria for research master's programmes (2016). The committee judges that the programme meets each standard; hence it considers that the overall quality of the programme is **positive**.

Intended learning outcomes

The RMA CAST offers a strong and original interdisciplinary combination in arts, science and technology through the lens of culture. While the Science and Technology components of the programme have been in the lead until now, the committee endorses the current efforts to integrate the arts dimension more strongly. In this regard, it is important that the programme communicates clearly (to potential applicants) about the rationale behind the C, A, S and T elements in CAST. The intended learning outcomes reflect not only the domain, level and orientation of the programme, but also do justice to the profile and objectives of CAST. The set of learning outcomes is comprehensive and formulated in good detail; regular alignment checks ensure that the programme profile, learning outcomes, course goals and teaching and assessment formats continue to match. CAST prepares students for a career in research and expects students to be ready for follow-up careers both within and outside academia. The committee judges that the RMA Cultures of Arts, Science and technology **meets** the standard.

Teaching-learning environment

The RMA programme is embedded in a dynamic learning environment featuring a strong and relevant curriculum, excellent research staff and a safe atmosphere for students to pursue their educational and research interests. The programme structure is clear, logically built and internally consistent. While courses are compulsory, students have quite some freedom to pursue their scholarly interests in the assignments. The combination of courses, internship, colloquia and research thesis allow students to demonstrate the envisaged competencies. The di-

dactic underpinning of the programme is particularly strong and fits the objectives of CAST, as well as its interdisciplinary substance and its research approach. Students bring a variety of backgrounds which CAST is using to implement the educational principle of the International Classroom. The track record of individual lecturers demonstrates that this RMA is founded on high quality research expertise of the teaching staff, who also possess excellent didactic skills and are proficient in English. The very small and highly international student cohorts appreciate the intensive forms of education and the mentor-mentee model of supervision, which in turn contributes to a real community feeling among the cohorts and allows for very short lines between students, staff and programme management. While the COVID-19 pandemic is impacting on the quality of education and the wellbeing of both students and staff, the programme is managing this crisis well. In order to further increase the quality of the programme, it is important that CAST pays attention to accommodating student requests regarding artistic research, recruits a slightly higher number of students, increases the programme's network outside academia, and mitigates the staff workload. The committee judges that the RMA Cultures of Arts, Science and Technology **meets** the standard.

Student assessment

Student assessment at the RMA CAST is organised in an exemplary way: the assessment system is strongly embedded in the policies and frameworks of the Faculty and the vision on assessment of the university; the assessment principles of feedback, transparency, validity and authenticity are implemented throughout CAST and constitute value added for the quality of the programme and the

learning competencies of the students; assessors take thesis evaluation very seriously and complete the forms in an insightful and consistent way; many stakeholders are involved in student assessment; and the Board of Examiners fulfils its quality assurance tasks in a professional way. Over the years, CAST has come to rely on a good quality assessment system that is backed up by robust quality assurance processes and implemented by stakeholders with a shared quality culture. The committee judges that the RMA Cultures of Arts, Science and Technology **meets** the standard.

Achieved learning outcomes

RMA students who graduated from the CAST programme have the necessary competencies to function as junior researchers inside and outside academia. Graduates from the programme have demonstrated through their theses and their professional careers that they achieved all learning outcomes. Since the proof of the pudding is in the eating, the findings on the achieved learning outcomes confirm that CAST is doing a good job. This appreciation is a compliment to individual students and graduates, as well as to the staff who – in line with the mentor-mentee model – supervised students and provided informal and formal feedback on their research work. Given the considerable workload involved in producing/supervising the thesis, the programme could check if the current expectations are

All standards of the NVAO assessment framework (2018) as well as the additional criteria for research master's programmes are assessed positively; the assessment committee therefore issues a **positive** recommendation for the accreditation of the programme.

On behalf of the entire assessment committee,
Utrecht, February 2022

Jan Baetens
Chair

still relevant and feasible. The committee judges that the RMA Cultures of Arts, Science and Technology **meets** the standard.

Recommendations

The committee has issued a positive judgement on the quality of each individual standard and on the quality of the programme as a whole. Nonetheless it sees room for improvement in a number of areas. The committee therefore issues the following recommendations:

- to communicate to applicants about the C, A, S and T elements and their inter-relation in the CAST programme;
- to accommodate 'alternative' student requests regarding artistic research or research output that is geared towards a non-academic professional audience;
- to strengthen the links with the non-academic research world, and invite alumni to present to students the full and broad range of career opportunities;
- to recruit a slightly higher number of students while maintaining the benefits of intensive education, guidance and supervision;
- to mitigate staff workload by reducing the current level of intensive supervision and assessment and/or by downsizing the assignments and thus the assessment workload.

Mark Delmartino
Secretary

Introduction

The Research Master Cultures of Arts, Science and Technology is a two-year full-time programme of 120 EC. The interdisciplinary programme is taught by research staff from the Maastricht University Science Technology and Society and the Arts, Media and Culture research groups and attracts about ten national and international students per year. The entire curriculum consists of compulsory courses, including a research internship, with students having ample freedom to address the topics of their choice in the assignments.

Institute

Maastricht University (UM) was founded in 1976 and is known for its innovative education model (problem-based learning), its international character and its multidisciplinary approach to research and education. The university consists of 6 Faculties and features more than 20000 students and 4400 staff.

The Faculty of Arts and Social Sciences (FASoS) was established in 1994: it comprises five departments and one research institute and offers twelve degree programmes, including the Research Master (RMA) Cultures of Arts, Science and Technology. The faculty features students and staff representing more than 20 different nationalities, which in turn strengthens its international orientation of research and education. Teaching and research take place in interdisciplinary settings; every degree programme is taught by research staff from different departments.

The faculty's research institute studies societies and cultures as they unfolded during the modern and contemporary era. The RMA under consideration draws on expertise from two research programmes: the Maastricht University Science, Technology and Society Studies (MUSTS) combines philosophical, historical, sociological and anthropological approaches to look at how modern societies are constituted by science and technology, and how social and cultural conditions shape technological and scientific developments. The Arts, Media, and Culture (AMC) research programme analyses the dynamics of cultural change by studying how developments in the arts and the media respond to socio-cultural and political

changes and how cultural artefacts and practices can shape social and political culture.

Programme

The two-year full-time RMA Cultures of Arts, Science and Technology (CAST) is a broad interdisciplinary programme that starts from the claim that studying the roles of the arts, science and technology is indispensable for understanding modern cultures. Teaching staff on the programme are linked to one of the FASoS departments and affiliated with the MUSTS or AMC research programmes, as well as with Dutch graduate schools such as Science, Technology and Modern Culture (WTMC) and the Research School for Media Studies (RMeS).

CAST is a small-scale programme; since the previous external assessment in 2015, around 25 students graduated. Acknowledging the developments and adjustments of the programme following the recommendations of the previous external assessment and the mid-term review, the current assessment committee has looked at the actual quality and challenges of the RMA CAST, as well as at its ambitions for the future.

Assessment

Maastricht University (UM) assigned AeQui Nederland to perform a quality assessment of its RMA CAST. In close co-operation with the programme management, AeQui convened an independent and competent assessment committee. The committee members are shortly presented in attachment 1. A preparatory meeting with repre-

representatives of the programme was held to exchange information and plan the date and programme of the site visit.

In the run-up to the site visit, the committee studied the programme's self-evaluation report and reviewed a sample of theses accepted during the last four years. The first impressions on the programme based on this report and the thesis review were input for discussion among the committee members in their online preparatory meeting on 22 November 2021, as well as during the visit.

The site visit was carried out on 24 November 2021 according to the programme presented in attachment 2. In view of the public health situation following the COVID-19 pandemic, the visit was performed online. The committee has assessed the programme in an independent manner; at the end of the visit, the chair of the assessment committee presented the initial findings of the committee to representatives of the programme and the institution. The visit also featured an open consultation hour for RMA CAST students, teaching and support staff; eventually nobody used the opportunity to speak individually and confidentially with the committee.

The committee performed its assessment in relation to, and in consideration of, the cluster of programmes in which this programme is placed. The contextualisation of the programme in its cluster was conducted by the complete committee during the preliminary meeting and the final deliberations. The knowledge required for this was present in (part of) the committee.

In the underlying document, the committee is reporting on its findings, considerations and conclusions according to the NVAO framework for limited programme assessment. The report also takes into account the additional criteria for research master's programmes formulated in the NVAO publication dated May 2016. A draft version of the report was sent to the programme management; its reactions have led to this final version of the report.

Initiated by the programme, a development dialogue will be planned early 2022. The results of this development dialogue have no influence on the assessment presented in this report.

1. Intended learning outcomes

The Research Master (RMA) programme Cultures of Arts, Science and Technology (CAST) offers a strong and original interdisciplinary combination in arts, science and technology through the lens of culture. While the Science and Technology components of the programme have been in the lead until now, the committee endorses the current efforts to integrate the arts dimension more strongly. In this regard, it is important that the programme communicates clearly (to potential applicants) about the rationale behind the C, A, S and T elements in CAST. The intended learning outcomes reflect not only the domain, level and orientation of the programme, but also do justice to the profile and objectives of CAST. The set of learning outcomes is comprehensive and formulated in good detail; regular alignment checks ensure that the programme profile, learning outcomes, course goals and teaching and assessment formats continue to match. CAST prepares students for a career in research and expects students to be ready for follow-up careers both within and outside academia. According to the assessment committee, the RMA Cultures of Arts, Science and Technology **meets this standard**.

Findings

Profile

The two-year full-time RMA Cultures of Arts, Science and Technology (CAST) is an interdisciplinary programme that starts from the claim that studying the roles of the arts, science and technology is indispensable for understanding modern cultures. It provides students with the conceptual tools and methods from the interdisciplinary field of Science, Technology and Society studies (STS) and from Humanities, notably history, philosophy, literature and arts. The programme focuses on developments in the 20th and 21st centuries, with some attention to the historical roots of modern developments.

The assessment committee acknowledges that the programme is quite exceptional in its focus on cultural entanglements of the arts, science and technology. CAST sets itself apart from other Arts and Culture programmes by including science and technology as cultural practices; it differs from Science and Technology studies programmes by adding/including the arts as institutionalised social practices. Comparing CAST to the RMA programmes in the Humanities cluster, the committee noticed that there are both similarities and differences: CAST is truly interdiscipli-

nary and has a specific focus on science and technology, while other interdisciplinary programmes have a scope that is more narrow. According to the committee, the CAST programme has a strong and distinctive profile that is resisting the split between arts, science and humanities.

The committee gathered from the written materials and the discussions that the empirical focus on arts, science and technology is fully in line with the research interests and expertise of the staff teaching on the CAST programme. There is a clear link between the contents of the courses and the expertise of the teaching staff. Moreover, the research topics of the master theses strongly match with the expertise of the thesis supervisors who belong to the MUSTS or ACM research programmes at FASoS. According to the committee, this approach allows for innovative synergies between the STS and Humanities domains and ensures that students are guided by experienced researchers.

It is the ambition of the CAST programme to train students to become junior researchers who study the role of arts, science and technology in modern culture, as well as the interactions between these three domains. According to the committee, this is exactly what the programme profile sets out to

do: CAST is well suited for students who wish to gain an overview over a wide range of humanities scholarship rather than focus on particular aspects of the arts, science and technology. It has the potential to foster innovative research across the disciplines involved in the programme. The university and the faculty have a strong tradition of both interdisciplinary work and STS, which form the backbones of this programme. Moreover, CAST is unique in combining STS with different themes, theories and methods from Arts and Humanities. This combination is developed strongly and allows the programme to address current issues.

Based on its findings in the preparatory phase, the committee used the online discussions to address the positions of Culture and of Arts in the programme (title): the previous assessment panel recommended to enhance the visibility of Arts in the programme; students indicated in their section of the self-evaluation report that the Arts component is not explicitly merged with the STS component and that some students had entered the programme assuming the Arts dimension of the programme would be much stronger; the assessment committee noticed in the sample of theses it reviewed that the research topics were hardly addressing Arts; finally, the committee noticed very little attention/reference in any of the materials to the Cultures component of the programme.

Regarding the "C-dimension" of CAST, the committee understood from the discussions that culture is not a separate fourth field of interest and attention, but rather an overarching component: the three domains of Arts, Science and Technology are studied in an interdisciplinary way through the lens of culture as a set of socially and institutionally organised rules and networks. In this regard, students at CAST do not study arts, nor science and technology, but rather cultures of arts and the culture/social practices of science and technology. The committee fully agrees to this approach and thinks it befits the profile of the programme and the expertise of the staff and its

research programmes. Given that this positioning was not obvious from the written materials, the committee advises the programme to communicate this profile more explicitly in its materials, in particular to potential applicants.

Regarding the "A-component" of CAST, the committee learned that the programme has finetuned and rephrased its profile to reflect the CAST approach towards the Arts. This has been done both at the level of the programme rationale and in terms of course titles and curriculum contents. In this regard, the committee found it very interesting to compare the previous and the current profile text in the report annexes: the actual version is more outspoken on the position of Arts in the programme and befits the current RMA CAST programme. Students and alumni indicated during the discussions that over the years there has been more explicit attention to arts in the curriculum; while theories in art studies were only shortly touched upon before and the focus was more on science and technology studies, there are now more students who wish to pursue a connection between STS and Arts in the courses, internship and thesis and who are certainly encouraged by the programme to do so. Staff and management from their side emphasised that most students enrol with a background in Humanities and Social Sciences; only a limited number have a bachelor's degree in science or technology. They also confirmed that recently, more and more students have an explicit interest in Arts. Over the years, the treatment of Arts, Science and Technology has become more symmetrical and on the website the interaction between the three domains is spelled out. Moreover, students can follow their own interests in course assignments, the internship and the master thesis; as students are already producing course deliverables in the domain of Arts, it is very likely that in the near future, there will be more theses with an explicit (cultures of) Arts dimension. The committee welcomes these developments and encourages the programme to communicate to applicants and to students the variety of opportunities the RMA

CAST is offering in the domains and at the cross-roads of Arts, Science and Technology.

According to the written materials, the programme profile is such that CAST graduates should be ready to start in a PhD position or work at a non-academic knowledge-intensive organisation. While the committee noticed during the discussion that most students have the ambition to enter a PhD trajectory upon graduation, both students and recent alumni confirmed that the programme is starting to pay attention to research-based careers both inside and outside academia. This has not always been the case, though, as older alumni indicated they were not told how their skills could be relevant for jobs outside the university. The committee therefore welcomes the programme's attention to employability and its recognition that CAST can also lead to non-academic careers. In this regard, the research internship offers a good opportunity for students to test in a safe environment the academic or non-academic career path they envisage. Following discussions with alumni and students and looking at the available data on graduates, the committee encourages the programme to invite alumni who ended up in a wide range of jobs to reflect upon the very diverse paths their careers have taken since they graduated CAST.

Learning outcomes

The RMA CAST features 31 intended learning outcomes (ILOs), which are clustered around the five Dublin Descriptors and cover substantive, research, integrative, professional and learning competencies. The learning outcomes listed are formulated in good detail and reflect the respective competency clusters, which in turn are very different from each other. The committee noticed that the learning outcomes are targeted towards the methodological self-awareness of students and critical thinking about complex cultural phenomena, governmental issues and global infrastructures, meta-skills that are rather rare in more classical fields of study. The integrative competencies seem crucial to the interdisciplinary character of the CAST programme. In this regard,

learning how to evaluate and handle complex situations with incomplete information is particularly useful. Moreover, the committee thought that transferring and applying concepts, theories and methods from an established field of study to a new research domain to facilitate substantive, theoretical and methodological innovation reflects a powerful pedagogical strategy. Hence, the committee found the comprehensive set of ILOs well chosen, clearly connected to the Dublin Descriptors and appropriate for the goals of this particular RMA. The learning outcomes are formulated in such a way that they cover the domain (CAST), the level (master) and the orientation (academic) of the programme.

Furthermore, the committee established that the specific research-oriented nature of a RMA programme is visible in the formulated ILOs. Graduates have research competencies that enable them to apply their knowledge, understanding and problem-solving abilities in new or unfamiliar environments within broader contexts related to studying the cultures of arts, science and technology. Moreover, CAST students discuss the societal implications of recent developments in the domain and learn about ethical rules and how to apply these to scholarly work. By the time they graduate, students will master all phases of the research cycle and conduct a research project independently. Hence, the committee confirms that the ILOs are formulated in such a way that they do justice to the research master level of the programme.

In addition to its outspoken research features, the programme and its learning outcomes prepare students also for a career in research-informed positions outside academia, notably as employee or self-employed researcher in the cultural domain or the media industry. According to the committee, references in the ILOs to interactional expertise, to problem-solving abilities in new and unfamiliar circumstances and broader contexts, to communication with non-specialist audiences, to outreach activities and to the various forms of

knowledge output such as edited volumes, posters or exhibition catalogues, illustrate that the CAST programme expects all students to be ready for follow-up careers outside academia.

Finally, the committee noticed a clear match between the profile and the learning outcomes of the programme. In fact, the ILOs were developed a long time ago and have been finetuned over the years. In 2018-2019 an extensive exercise of constructive alignment took place matching the reformulated profile to the learning outcomes of the programme and tightening the link between these learning outcomes and the objectives of the respective curriculum courses. At the same time, the individual courses were scrutinised in order to have their learning goals reflected in the teaching and assessment formats, as well as in the study load and the course credits. This alignment process was not a one-off endeavour but is ongoing: every year, the programme director reflects in the Education Plan on the educational practice at CAST and checks whether changes in course materials, methods or goals are necessary for students to achieve the programme learning outcomes. The committee thinks this is a good practice and a strong process, which ensures alignment between ILOs, teaching and learning, assessment, and future employment.

Considerations

The committee considers that the RMA CAST takes up a specific position within the higher education landscape in the Netherlands and worldwide as it offers a unique interdisciplinary combination in the study of the arts, science and technology through the lens of the cultures of modernity. The programme is fully in line with key features of both university and faculty, as well as with the research interests and expertise of the teaching staff and thesis supervisors at CAST. While the Science and Technology components of the programme have been in the lead until now, the

committee endorses the programme's shift towards a more equal treatment of all three components and advises to pursue on this track. A point for immediate attention is the communication to applicants about the C, A, S and T elements of the programme: what CAST is about, which broad range of substantive research opportunities is available, and which (student) expectations may not be within the remit of the programme.

The committee considers that the intended learning outcomes reflect not only the domain, level and orientation of CAST, but also do justice to the profile and objectives of this particular research master programme. The set of learning outcomes is comprehensive and formulated in good detail. The committee thinks highly of the regular alignment exercises to ensure the match between the profile, the learning outcomes, the course goals and the teaching and assessment formats.

The CAST programme definitely prepares students for a career in research. While most students have the ambition to enter a PhD trajectory upon graduation, there are opportunities during the curriculum to also test other career paths in a safe environment. The committee considers that the learning outcomes are formulated in such a way that the programme expects all students to be ready for follow-up careers both within and outside academia. In this regard, the programme may want to invite more alumni to talk about the very diverse paths their careers have taken since they graduated CAST to complement the programme staff in guiding students regarding opportunities outside academia.

Based on the interviews and examination of the underlying documentation, the assessment committee concludes that the RMA Cultures of Arts, Science and Technology **meets standard 1, intended learning outcomes.**

2. Teaching-learning environment

The RMA programme is embedded in a dynamic learning environment featuring a strong and relevant curriculum, excellent research staff and a safe atmosphere for students to pursue their educational and research interests. The programme structure is clear, logically built and internally consistent. While courses are compulsory, students have quite some freedom to pursue their scholarly interests in the assignments. The combination of courses, internship, colloquia and research thesis allow students to demonstrate the envisaged competencies. The didactic underpinning of the programme is particularly strong and fits the objectives of CAST, as well as its interdisciplinary substance and its research approach. Students bring a variety of backgrounds which CAST is using to implement the educational principle of the International Classroom. The track record of individual lecturers demonstrates that this RMA is founded on high quality research expertise of the teaching staff, who also possess excellent didactic skills and are proficient in English. The very small and highly international student cohorts appreciate the intensive forms of education and the mentor-mentee model of supervision, which in turn contributes to a real community feeling among the cohorts and allows for very short lines between students, staff and programme management. While the COVID-19 pandemic is impacting on the quality of education and the wellbeing of both students and staff, the programme is managing this crisis well. In order to further increase the quality of the programme, it is important that CAST pays attention to accommodating student requests regarding artistic research, recruits a slightly higher number of students, increases the programme's network outside academia, and mitigates the staff workload. According to the assessment committee, the RMA Cultures of Arts, Science and Technology **meets this standard**.

Findings

Programme

The RMA CAST amounts to 120 EC and is offered as a full-time two-year programme. The entire curriculum consists of compulsory courses with students having ample freedom within these courses to address the topics of their choice in the assignments. Year one focuses on gaining knowledge on contents and theories related to (cultures of) arts, science and technology, as well as on learning to apply key methods and integrative competencies. The first-year courses prepare students for the research internship and the thesis in the second year. During the entire programme, CAST students also attend research colloquia of the MUSTS and AMC research programmes. The committee obtained detailed information on the respective courses in the self-evaluation report, in the report annexes and in the materials provided through the digital base room. The committee found the CAST programme to be coherent, well-structured and logically built. The course structure is clear, well thought-through, and allows

students to develop the necessary competencies progressively throughout the programme. As CAST is an interdisciplinary programme, students are introduced to a broad range of knowledge and methods from a variety of disciplinary approaches. Given that all courses are compulsory, RMA students do not attend regular master courses.

The committee established furthermore that the learning goals of the courses align with the overall learning outcomes of the programme, which in turn ensures that by the end of the programme CAST students have indeed had the opportunity to demonstrate all intended learning outcomes. In this regard, the committee understood that issues of ethics and scholarly integrity, which are part of the learning objectives, are trained throughout the programme. Students receive writing guidelines throughout their studies and are expected to integrate these into the thesis. Moreover, a dedicated workshop on research ethics is part of the thesis trajectory. The committee

endorses the programme's approach to ethics in relation to scholarly work.

During the site visit, the committee discussed several components of the curriculum. Further to what was already addressed in the previous section, programme representatives indicated that course titles and course contents have been and are being revised to bring the curriculum up to speed with the changes to the profile of the programme. These changes concern in particular the Arts component, which is now more visibly present in the curriculum and constitutes a fully-fledged domain in CAST next to Science and Technology. For instance, the renamed *Intervening in Innovation* course covers innovation in art, science and technology and addresses among others artistic reflections on and interventions in science and technology.

The committee very much welcomes these adaptations that will definitely make a difference in integrating the Arts component more visibly in the curriculum. Nonetheless, the committee thinks that other topics and methods could be added, as well. According to the committee, the curriculum could address recent and innovative "hands-on" methods such as programming / critical code studies, artistic research, media archaeology, digital methods, etc., with a special focus on the course *Intervening in Innovation*. Moreover, it could be helpful to provide students with a more systematic orientation to the historically variable relations of art, science and technology in modern cultures.

In both years students attend research colloquia organised by MUSTS and AMC. The most recent student cohorts produce a reflection document at the end of year one on how the colloquia informed their choice for the research internship. They also reflect on the feedback they received during the year and how the topics they selected link to the CAST domains of Arts, Science and Technology; at the end of year two, students reflect on their internship and thesis and indicate how these experiences impact their future career

path. The committee thinks both the colloquia and the reflection documents are highly relevant: students indicated that they appreciate being part of a research programme and getting acquainted with 'real life' research work; alumni mentioned that the two-year programme gave them plenty of time to think about the future. Moreover, the combination of internship and thesis proved particularly helpful in identifying one's real interests in terms of both research and career.

The CAST programme features both a research internship and a master thesis: programme representatives indicated that both 'courses' constitute distinct projects that are based on different empirical material and methods; it is therefore not possible to combine the internship and the master thesis. The internship takes place in a real-life setting at a university, a research institute or a research-based non-academic institution (e.g. a museum). Alumni were very enthusiastic about this approach, including the fact that the internship output is graded as pass/fail. They enjoyed this freedom and time during the internship - after a very intense first year - to work and reflect on what they want to do during the thesis and as a follow-up to the RMA. Students are responsible for finding a relevant internship position, which has to fulfil a number of criteria. The committee was informed that the programme is very well networked in academic circles and that sometimes it is difficult for students to propose a non-academic setting that fulfils all requirements and is also easily accessible to non-Dutch speaking students. The programme management is aware of this imbalance and is planning to increase its network beyond academia, possibly also through strengthening connections to its increasing number of alumni working outside academia.

The thesis trajectory starts mid-January and ends late June; all students design a research project that is different from the internship and that is relatively close to the research practices and expertise of the CAST teachers and MUSTS or AMC staff. Students and alumni were very positive

about the thesis project with its individual supervision, classical tutorials and peer review by fellow students. The committee was informed that it is an explicit choice of the programme to have CAST students supervised by FASoS staff, which means that the thesis topics should be in line with the research interests of the staff. According to the programme staff, hardly any research project has been refused until now; students and alumni from their side did not think that this requirement has in any way refrained them from pursuing their own interest. Furthermore, the programme requires all students to write a full research thesis, not a regular journal article, because the extensive work allows for a more comprehensive demonstration and testing of all competencies: how to shape a longer argument, critically discuss theory, present empirical material, and reflect on methodologies. The committee acknowledges the programme choices. Given the likelihood that a growing number of students will enrol in CAST with varying backgrounds, programme/research expectations and career aspirations, the committee invites the programme to communicate clearly what CAST stands for and to reflect internally how it wants to accommodate 'alternative' student requests regarding artistic research or research output that is geared towards a non-academic professional audience.

Language

The title of the RMA CAST is in English and so is the language of instruction. The programme is taught in English because English is the language of international scholarly communication in the field. The choice for English prepares students to participate in international debates and pursue an international career. CAST wants to make use of the expertise of the increasingly international staff body. The international atmosphere on site and CAST students gathering in International Classrooms are an important asset for the programme as it helps students to function in multidisciplinary and intercultural teams. Both the university and the faculty have a distinctly international outlook with a majority of students and staff coming from abroad, and a clear language

policy. The committee understands and endorses the argumentation to offer the programme in English and have the programme title in English. Moreover, it noticed that both students and lecturers on the programme are (more than) sufficiently proficient in English.

The discussions on site did however reveal that international students who wish to learn Dutch have only limited opportunities to do so at an affordable cost. While it is understood that this is not an issue that can be solved at the level of the RMA programme, the committee does think that it is an important element for the integration of international students, who may want to do an internship or have longer-term career plans in the Netherlands.

Didactics

CAST offers intensive education in small groups. Like other programmes at UM, CAST follows the didactic approach of problem-based learning (PBL), a teaching method with four guiding principles: learning is approached as a constructive, collaborative, self-directed and contextual process. PBL encourages students to take charge of their own learning process; it emphasises dialogue and collaboration, which is facilitated in small-scale educational set-ups. Lecturers complement the discussions in seminars, while self-study enriches the learning process of students. Students appreciate this approach and informed the committee that the variety of teaching and learning activities enables them to first learn (lectures), then discuss (workshops) and finally apply (skills training) new theories and methods.

While being familiar with the general PBL methodology as it is mainly implemented in undergraduate programmes and consists of seven steps, the committee obtained clarifications during the visit on how PBL is applied in CAST: the four guiding principles are maintained as a form of research-based learning. This approach – where students are offered the opportunity to learn about conducting research and to acquire new substantive knowledge by doing research –

is more in line with the advanced level of the programme and the often very small classes.

Moreover, students learn by doing and produce authentic outputs: CAST staff supervises students in doing hands-on research for a review paper, a research paper, a research proposal and/or an outreach product. In this way, theoretical approaches are taught alongside and on the basis of empirical work students are actively engaged in. During the master thesis trajectory, the mentor-mentee model is dominant: research-teachers draw on their own research experience while tutoring a small group of students, while students acquire hands-on experience with research under close supervision of experienced researchers.

Finally, the increasingly international composition of both students and staff at CAST allows the programme to benefit fully from the International Classroom: students and staff contribute in class their own educational and cultural background, which in turn offers a wide range of differing perspectives on the cultures of arts, science and technology.

Overall, the committee found that the didactic underpinning of the programme is not only extensively described but also particularly well fitting the objectives of this RMA CAST. According to the committee, there is a strong match between the educational principles underlying the programme and the (inter/multi/trans)disciplinary substance and research character of CAST.

Research

Studying the staff overview at CAST, their CV's, research activities and publications, the committee noticed that the teachers and course coordinators are all active researchers who belong to one of the departments and one of the research groups of the Faculty. Their research expertise is very much in line with the contents of the courses, while the topics of the master theses match the work performed in the MUSTS or ACM research groups. According to the committee the research

character of the CAST programme is guaranteed by the involved staff.

The committee has also looked into the external research assessment of FASoS and its four research groups, which were visited in 2017 and had a midterm review in 2020. The entire faculty, including the two research groups that are relevant for CAST – Maastricht University Science and Technology in Society and Art, Media and Culture – obtained a "very good" score on all three assessment points.

Moreover, the committee gathered that the two research groups that contribute to CAST are well networked in university-wide research groups such as the Maastricht Centre for Arts, Culture, Conservation and Heritage and the Maastricht Centre for Gender and Diversity. These links can only enhance the connection to the practice and culture of research within the team and increase the exposure of CAST students to an even broader range of research.

Admission

The RMA CAST is a selective programme: the entry requirements are published on the CAST website and in the Education and Examination Regulation. While these requirements are rather straightforward and relatively easy to fulfil – there is for instance no GPA threshold – it is the Board of Admissions (the programme director and two staff) who selects the candidates after a thorough review of the application forms and possibly an interview. In a recent admission round, around 50 candidates applied, 20 were admitted and eventually 9 enrolled.

CAST is a small-scale programme and has the ambition to stay small. While programme representatives indicated to the committee that they aim for an intake of around ten students per year, a few cohorts only consisted of four to five students. The current cohort features nine students, which is an ideal number in view of the didactic PBL-approach and the intensive education and guidance by staff. According to the programme

management, it is difficult to find a balance between on the one hand stepping up marketing efforts to attract (many) more suitable candidates and on the other hand ensuring the programme remains financially viable, didactically relevant and feasible from a staff workload point of view.

The committee understands the concerns of the programme in this respect. It encourages the CAST team to recruit a slightly higher number of students – between 10 and 15 – which should enhance the community feeling among students while still maintaining the benefits of intensive education, guidance and supervision in a problem-based, research-informed authentic environment.

Students

Every year a limited number of students enrol in the RMA CAST. These students have different geographical, educational and cultural backgrounds; while several students obtained a bachelor's degree in the Netherlands, over half of the CAST students are international. The committee understood from the discussions that the small number of students and the fact that all students follow the same courses contribute to a community feeling among the respective cohorts.

Students indicated in their report chapter and during the discussion that they are overall satisfied with the programme: they appreciate the strong coherence of the programme, its interdisciplinary dimension and the variety of teaching and learning formats. Students moreover value the freedom to pursue their own scholarly interests and think highly of the expertise and commitment of the staff and the programme director. The study load is challenging but overall feasible; alumni indicated in this regard that the first year is very intense while in particular the research internship period allows for reflection. Moreover, the programme decided to smoothen – as of 2021/2022 - the transition rules between year 1 and year 2 allowing students to move to the second year without having completed all the courses of year 1. The committee understands

that this measure is likely to reduce the study delay for a number of students.

Asked about points for improvement, students indicated that there seems to be an imbalance between the disciplinary components with STS approaches dominating the programme and the Arts component getting less attention. In order to mitigate the study load, students suggest to review the current size (word count) of the assignments. While the programme is preparing them for a research career, students indicated that more can be done in terms of attention to – and preparation for – research careers outside academia. The committee has addressed these issues in several sessions and reported on the outcome of the discussions in different sections of this report. Finally, students complained about the lack of study space at the Faculty. Both programme and faculty management are aware of the issue but have no immediate and satisfying solution, apart from offering students plenty of study space in a different faculty which is situated at cycling distance outside the city centre.

The committee gathered from the written materials and the discussions that programme-specific information is readily available for students; the programme director and the course coordinators inform students about the programme while every course has its own page on the newly introduced university-wide electronic learning environment. Moreover, students can – and do – impact on the quality of the courses: course evaluations take place twice during every course and at the end, students fill out an anonymous online evaluation form. The Educational Programme Committee, which consists of both students and staff, looks into the results of the course evaluations. According to the committee, both the information on courses and the quality of the courses is well taken care of at the RMA CAST.

Staff

The committee noticed that the ambitions of the RMA programme also manifest themselves

through the background and expertise of the faculty members involved. About 20 professors are involved in teaching or supervising thesis students at CAST. The gender balance among the team is good. Looking at their CV's, the committee established the excellent quality of the staff as internationally recognised researchers and teachers. All staff teach in their area of expertise and together cover the diversity of approaches and disciplines in arts, science and technology. Most teachers are affiliated with MUSTS, a smaller group with AMC. Some researchers have a combined focus on science and technology and one of the arts or the built environment. The AMC researchers have a strong international orientation and are explicitly focused on the role of science and technology in their arts and media-related research.

Further to what was mentioned on the visibility/position of Arts in the programme, the management is aware that some members of the AMC research group will retire in the near future. The committee was informed that the recruitment of new staff who will be able to represent the Arts dimension in CAST is of strategic importance and thus high on the agenda of the programme.

According to the self-evaluation report, most lecturers have a University Teaching Qualification and a strong international profile. All teachers are fluent in English, and some are native speakers. The CAST team fulfils the university-wide language policy criteria and their English language capacities (a minimum level of C1) have been tested in 2019-2020. Students indicated to the committee that the didactic skills of the CAST team are good; the committee noticed during the discussions that CAST lecturers are proficient in English.

The discussions furthermore showed the staff's great enthusiasm for the programme and commitment to the students. Students from their side emphasized in their report chapter and during the discussions the high level of expertise of all lecturers on the programme, as well as the quality of

instruction. Students also feel that staff is highly committed to the programme and genuinely interested in their academic and personal wellbeing. According to the committee, the lecturers are of an excellent quality and together they represent an interesting mix of disciplines and fields of expertise. Moreover, the quality of teaching and student support offered by the same CAST team is excellent.

The committee did notice, however, that the workload of the CAST staff is considerable (and that the COVID-19 pandemic has increased this workload even more – see below). The current number of staff seems to be sufficient to deliver small-scale intensive education and to support, guide and supervise the actual cohorts of students according to the mentor-mentee model. The staff confirmed during the discussions that the workload is high but that they also consider their involvement in the programme as a relevant contribution to their own research: in fact, staff often do not approach students from a mentor-mentee viewpoint but rather see it as a cooperation between junior and senior colleagues. Nonetheless, the programme may want to reflect whether staff should really maintain the current levels of intensive supervision and extensive assessment and/or whether the size of the assignments - and thus the staff workload linked to assessment - can be slightly reduced.

COVID-19

The committee gathered from the dedicated, extensive and informative report section on "Education in times of COVID-19" that the pandemic has had an impact on the CAST programme, its students and lecturers. The committee learned that education activities moved online in March 2020. At the start of the lockdown, the Faculty Board took measures with regard to the educational design, the wellbeing of students and the support to staff. These measures included among others the financial investment in software for online teaching, extended student evaluation questionnaires with attention to wellbeing, more time for student advisors and more online open office hours,

webinars and workshops by the Support Team Online Teaching and Learning, etc. In the academic year 2020-2021 courses were often held in a hybrid form as not all students were able to come to Maastricht for on-campus training or were in COVID-19 isolation for some time.

Notwithstanding these highly appreciated efforts from the management, students and staff indicated that the pandemic has affected not only the quality of education but also the learning pleasure of students. While the pandemic did not influence assessment practices nor the learning outcomes of the programme, it did hamper certain learning opportunities. Conducting courses online meant that engaging in discussion became challenging; students could not visit university libraries but access only online sources; compared to other cohorts before, more students did their research internship in the Netherlands and most of them did so online.

The discussions revealed that overall, the CAST staff managed to mitigate somewhat the effects of the pandemic for the students. Students valued very much the efforts and genuine concern of the CAST staff to be available for students and monitor their wellbeing. Nonetheless, students missed the social aspect of study and the inability to be together in person in class did affect their wellbeing. Despite the problems associated with COVID-19, the committee found that all stakeholders have been very responsive to the situation, trying to reduce as much as possible the impact of the pandemic on the courses, staff and students.

Considerations

The committee considers that the RMA programme is embedded in a dynamic learning environment featuring a very strong and relevant curriculum, excellent research staff and a safe atmosphere for students to pursue their educational and research interests.

According to the committee, the programme structure is clear, logically built and internally

consistent. While courses are compulsory, students have quite some freedom to pursue their scholarly interests in the assignments. The committee established furthermore that there is a clear alignment between the programme learning outcomes, the course learning goals and the teaching formats. The combination of courses, internship, colloquia and research thesis allow students to demonstrate the envisaged competencies. Having a second-year programme featuring both an internship and a thesis proved particularly helpful for students to identify their real interests in terms of both research and career. The committee is confident that by the end of the programme all CAST students have become junior researchers who are ready to pursue a career inside or outside academia.

The committee thinks highly of the didactic underpinning of the programme, which fits the objectives of CAST and matches its (inter/multi/trans)disciplinary substance and research character. Moreover, students bring a variety of backgrounds which the programme uses in implementing the educational principle of the International Classroom. The committee welcomes this approach because it promotes different viewpoints and aligns with the interdisciplinary dimension of the programme. It also constitutes an additional argument for the committee to endorse the argumentation of the programme to offer CAST in English.

The track records of the individual lecturers demonstrate according to the committee that the RMA is founded on high quality research expertise of the teaching staff. This expertise is very much in line with the contents of the courses, while the topics of the master theses match the work performed in the MUSTS and ACM research groups. Moreover, the staff has excellent didactic skills, is proficient in English and committed to the programme and its students. The committee considers that the research character of the CAST programme is guaranteed by the involved staff.

The committee was struck by the very small and highly international student cohorts who appreciate the intensive forms of education and the mentor-mentee model of supervision. This allows for a real community feeling among the cohorts, as well as for very short lines between students, staff and programme management.

Finally, the committee considers that the COVID-19 pandemic has had and continues to have an impact on the quality of education and the wellbeing of both students and staff. Overall, the programme is managing this crisis well. The committee appreciates the efforts of the faculty, management and staff to develop alternatives for their educational offering and to monitor the student's wellbeing.

In addition to these positive considerations, the committee advises the programme to address the following issues in due course:

- to think about ways to accommodate 'alternative' student requests regarding artistic research or research output that is geared towards a non-academic professional audience;
- to recruit a slightly higher number of students while still maintaining the benefits of intensive education, guidance and supervision;
- to increase the programme's network outside academia, which in turn will facilitate students in pursuing their internship in a non-academic setting;
- to mitigate the staff workload by reducing the current level of intensive supervision and extensive assessment and/or by downsizing the assignments and thus the assessment workload.

Based on the interviews and examination of the underlying documentation, the assessment committee concludes that the RMA Cultures of Arts, Science and Technology **meets standard 2, teaching-learning environment.**

3. Student assessment

Student assessment at the RMA CAST is organised in an exemplary way: the assessment system is strongly embedded in the policies and frameworks of the Faculty and the vision on assessment of the university; the assessment principles of feedback, transparency, validity and authenticity are implemented throughout CAST and constitute value added for the quality of the programme and the learning competencies of the students; assessors take thesis evaluation very seriously and complete the forms in an insightful and consistent way; many stakeholders are involved in student assessment; and the Board of Examiners fulfils its quality assurance tasks in a professional way. Over the years, CAST has come to rely on a good quality assessment system that is backed up by robust quality assurance processes and implemented by stakeholders with a shared quality culture. According to the assessment committee, the RMA Cultures of Arts, Science and Technology **meets this standard**.

Findings

Assessment system

The committee gathered from the self-evaluation report that student assessment in the RMA CAST is embedded in the assessment policy of the Faculty, which in turn is aligned with UM's vision on assessment. The organisation of assessment is described in the Education and Examination Regulations of the FaSoS master programmes and in the Faculty Rules and Regulations of the Board of Examiners, while the individual assessment provisions per course are listed in the programme's Education Plan. The committee has looked into the faculty and programme documents and found these to be both clear and relevant. It noticed in particular that the key characteristics of assessment in CAST reflect recent developments at university and faculty level. In fact, UM has sharpened its vision on education, didactics and assessment, which resulted in 2020 in a new assessment vision based on three elements: assessment is meaningful for the learning process of the student; assessment supports the constructive, contextual, collaborative and self-directed principles of problem-based learning; and assessment is coordinated at programme level. The committee acknowledges that these university-wide elements are incorporated in the assessment system as operated by CAST: in this regard, the committee thought that the title of the key chapter of the faculty document "Moving from an assessment

culture of testing toward a culture of feedback and development" describes exactly what is currently being undertaken at CAST.

Two elements stand out in the way students are assessed at CAST: feedback and authenticity. In most courses staff provides feedback on draft versions of the exam products prior to the summative assessment. Moreover, students are trained to not only provide feedback but also to reflect on feedback from peers and tutors. Students indicated to the committee that they value this attention to and training in peer feedback. The authenticity of assessment implies that all exams reflect forms of output that are also assessed in 'real' academic life. The committee noticed that feedback and authenticity play an important role in student assessment at CAST and that these assessment principles constitute value added for the students not only during the programme but also as a learning skill they can use in their career.

As mentioned already in previous sections, there is a clear link between assessment, course goals and programme learning outcomes at CAST. The committee noticed that this connection is described in the Education Plan, the Assessment Table and in individual course handbooks. This constructive alignment is enhanced by the policy – endorsed by the Board of Examiners – that the

course coordinator is also the responsible examiner who ensures that the assessment format is in line with the course objectives (validity) and relevant for the further professional development of students (authenticity). Within this assessment framework, students can choose freely their own topics of investigation and demonstrate in a range of research formats their competencies within the broad domains of arts, science and technology.

The previous assessment committee suggested CAST to do away with the predominance of written assessments; the midterm review advised the programme to list the efforts undertaken to diversify assessment and visualise in particular the formative aspects of assessment. The current assessment committee acknowledges these changes: at the time of the visit in 2021-2022, there is more diversity in assessment and the respective assessment formats, including the formative ones, are clearly stipulated in the respective course handbooks, as well as the overall Assessment Table and the Education Plan.

Course assessment

The committee noticed that the principles of assessment are effectively implemented in the assessment formats of the respective courses. Furthermore, it gathered from the materials and the discussions that each assessment prepares for a next one: the review paper in the first course prepares for the research paper in the second course, which in turn allows to write the research proposal and the second research paper in courses three and four; working in pairs prepares for the joint project, while the research proposal helps the research internship. In this way, the different research products embody a diverse and distinct set of approaches, methods, competences and knowledge that prepare CAST students for the research master thesis.

Each assessment format has its own evaluation form with a set of criteria. Students indicated to the committee that they are well aware of the course expectations, the assessment format and

the evaluation criteria. The expectations are communicated during the course and available on Canvas or in the coursebook. Furthermore, the programme developed criteria for formative feedback by both tutors and students. Students very much appreciate these forms as they help in providing peer feedback to fellow students. Having looked at some course assessments and their evaluation forms, the committee found the materials adequate and the set-up of course assessment at CAST robust.

While the majority of students was overall highly positive about course assessment, a few individuals thought the written feedback was not always in line with the grade. Some students thought the comments were too positive for the grade, while in other cases the grade seemed better than the written feedback. In all cases, however, students confirmed that course coordinators were available for additional feedback and clarification. In addition to these end-of-course assessments with written feedback, students indicated to the committee that they often also receive informal oral feedback, e.g. on presentations or draft versions of course deliverables, and that this feedback is constructively critical. The committee gathered from the materials and the discussions that assessment is taken seriously at CAST and serves both formative and summative purposes.

Finally, the committee was informed that the COVID-19 pandemic did not so much affect student assessment as it impacted on other parts of the programme. Many courses are assessed through written assignments. The formative assessment of presentations including through peer feedback has been adapted to the online format.

Thesis assessment

The committee noticed that thesis assessment is well organised in the RMA programme. The thesis is written under the supervision of one scholar and assessed by two graders: the supervisor and the second assessor who belongs to a different department. They both use a dedicated thesis evaluation form. The programme director assigns

the second grader and the list of grading couples is approved by the Board of Examiners.

As part of its preparation for the assessment visit, the committee reviewed a sample of 15 RMA theses and their evaluation forms. Overall, the committee is satisfied with the format of the evaluation form and the way it is used by the assessors. In fact, the committee thought that in almost all cases, the score was adequately motivated in the evaluation form. Moreover, the committee found the assessment form to be well designed: it contains topics and questions that shape the evaluation without being overly prescriptive. In this way, the evaluation form is very much in line with the mentor-mentee spirit in which the thesis has been produced. The committee also noticed that the assessors gave interesting and well thought-through feedback, which accurately reflected the strengths and weaknesses of the respective theses. The thesis evaluation sample demonstrated that graders take thesis evaluation very seriously and provide detailed narratives to motivate their judgement. In cases where this was appropriate, the assessors also provided suggestions on how to take the work forward to publication.

Discussing its findings with programme representatives, the committee was informed that coherence in grading and feedback is a constant point of attention for the programme and is monitored by the Board of Examiners. Every year a calibration session is organised for thesis supervisors in which an anonymised thesis and its evaluation form are studied, scored again and discussed. According to the committee, this is a good practice which has clearly impacted on the quality and coherence of thesis evaluation.

While the thesis evaluation procedure foresees independent grading, the single evaluation form the committee received did not allow to ascertain this independence. The committee learned during the discussions that there are clear procedures on how to complete evaluation forms and what to do in case of considerable disagreement among the grading pair. Hence, the committee

invites the programme to make available the entire assessment dossier to future external reviewers as this will demonstrate the full potential and quality of the programme's thesis evaluation approach.

Assurance of assessment quality

The assessment quality of the RMA CAST is assured by a Board of Examiners which covers all degree programmes of the Faculty of Arts and Social Sciences. The Board consists of four internal staff and one external member, as well as three secretaries. Two members are teaching in CAST; the external member brings specific expertise on exam construction and assessment plans, as well as a fresh view on the tasks of an examination board. The self-evaluation report provided useful information on the way the Board of Examiners assumes its tasks and controls the quality of both course and thesis evaluations. The discussions confirmed that the position of the Board of Examiners is properly regulated and that the Board members have relevant and complementary expertise to fulfil their duties.

The committee noticed that many stakeholders are involved in the quality of assessment. In addition to the Board of Examiners, the programme director and the course coordinators are responsible for monitoring and delivering good quality assessment. All assessment formats and their link to the course objectives and programme learning outcomes are checked ex ante by the programme director, the quality assurance officer and the Education Programme Committee. The Board of Examiners controls ex post the assessment quality. Furthermore, the committee spoke to the Assessment Support Team which operates at faculty level, updates the assessment policy and implements it in the respective programmes and courses. Team members advise on individual assessment practices and review a few courses every year. According to the committee, the RMA CAST can rely on a good quality control system featuring many relevant and complementary stakeholders.

The Board of Examiners indicated during the discussion that over the past few years there have hardly been any problems in quality assuring the CAST programme. This positive situation is the result of long and hard work by the programme management, the CAST teaching staff, quality assurance officers at faculty level and members of the Board of Examiners and the Assessment Support Team. Previous assessment panels were critical on the thesis quality and evaluation of different programmes at FASoS, hence the decision of the Faculty to introduce more procedures and create a quality culture among staff and programmes. While student assessment at CAST was not problematic, its organisation was not very formalised. Over the past eight years, this has changed completely and led among others to the comprehensive constructive alignment process mentioned before. Given that most theses it reviewed were submitted in the past three years and were deemed of very good evaluation quality, the committee can only acknowledge the efforts of many stakeholders and congratulate them for developing robust quality assurance processes.

Considerations

The written materials, the thesis evaluation review and the discussions have convinced the committee that student assessment at the RMA CAST is organised adequately. The assessment system of the programme is well embedded in the policies and frameworks of the Faculty and the vision on assessment of the university.

The committee thinks highly of the efforts of CAST to ensure alignment between programme, courses and assessment methods. Moreover, the committee appreciates the attention to feedback, transparency, validity and authenticity in course

assessment. The way these principles are implemented in CAST constitute value added for the quality of the programme and for the learning competencies of the students.

The committee's review of thesis evaluations has demonstrated that the programme can rely on good quality evaluation forms and that assessors take this evaluation very seriously. The feedback provided is precise, well thought-through and consistent with the grades.

The Board of Examiners has important tasks within the quality assurance system of the Faculty. The committee considers that the Board members have relevant and complementary expertise, which in turn allows the Board of Examiners to pick up issues of concern and report these to the programme.

The committee acknowledges the considerable efforts of many stakeholders in enhancing the quality of assessment at CAST and other FASoS programmes. The current assessment principles and processes described in the self-evaluation report, discussed during the visit and reviewed in the course assessment formats and the thesis evaluation forms demonstrate according to the committee that the CAST programme can now rely on a good quality assessment system that is backed up by robust quality assurance processes and implemented by stakeholders with a shared quality culture.

Based on the interviews and examination of the underlying documentation, the assessment committee concludes that the RMA Cultures of Arts, Science and Technology **meets standard 3, student assessment**.

4. Achieved learning outcomes

RMA students who graduated from the CAST programme have the necessary competencies to function as junior researchers inside and outside academia. Graduates from the programme have demonstrated through their theses and their professional careers that they achieved all learning outcomes. Since the proof of the pudding is in the eating, the findings on the achieved learning outcomes confirm that CAST is doing a good job. This appreciation is a compliment to individual students and graduates, as well as to the staff who – in line with the mentor-mentee model – supervised students and provided informal and formal feedback on their research work. Given the considerable workload involved in producing/supervising the thesis, the programme could check if the current expectations are still relevant and feasible. According to the assessment committee, the RMA programme Cultures of Arts, Science and Technology **meets this standard**.

Findings

There are two ways to establish whether the programme learning outcomes have been achieved – through a quality review of the final products and through checking what graduates are doing after they finished the programme.

Quality of thesis

The RMA CAST programme is completed with a thesis: a substantial test of research competence, which amounts to 30 EC and addresses all programme learning outcomes. The previous courses in the two-year programme have trained students in the knowledge and skills they need to do research for, and write, the research master thesis. The master thesis focuses on the role of science, technology and/or the arts in modern culture, and students show through the thesis their ability to specialise in particular CAST topics.

In line with the requirements of NVAO, the committee reviewed a sample of fifteen theses produced by students who graduated between June 2017 and August 2021. Based on a list of 25 entries the committee chair and secretary selected fifteen student numbers which were representative in terms of programme and final score. The committee found that all fifteen theses were of sufficient quality to pass and clearly met the requirements for a final product at research master level. The individual quality ranged from excellent to sufficient and there was not a single doubt on

the level of any of the theses; no files were internally redistributed for a second reading.

Committee members reported that all theses address timely and important research questions, and that even the thesis with the lowest grade contained very solid elements. The thesis sample showed that students have been very well trained in selecting their case studies and in reflecting on their methods of analysis. Several theses were of such good quality that they could lead to a publication; the committee was therefore not surprised to hear that some theses and prior course assignments have indeed been published in article form.

Following its review, the committee had three comments which it shared during the discussions: first, while students have the freedom to choose thesis topics, there were hardly any theses focusing on the domain of arts. Programme staff and management indicated that many students, also with a background in arts, are inspired by STS during the programme and eventually integrate both domains; about one fourth of the theses have to do with arts. Secondly, the committee wondered – given the high quality of many theses – why students have to write a comprehensive thesis as part of the programme curriculum and can only adjust and/or transform this afterwards in a scientific publication. The discussions learned that this is an explicit choice of the programme:

students should first be acquainted with the exploring 'playful' character of thesis research in a safe environment before this scientific outcome is disciplined into an article. Thirdly, given the considerable difference in the length of the theses reviewed, the committee was unclear if the thesis size was a hard criterion or whether the wordcount was merely indicative. According to the programme management, the indicated size of 25000-30000 words is a valid representation of the regular workload. While the wordcount is mentioned on the front page of the thesis evaluation form, it does not constitute a hard criterion. According to the committee, the programme could be more strict on the wordcount and even check whether the current thesis size is still relevant and feasible for both student and supervisor.

Performance of graduates

Another way to demonstrate the achievement of programme learning outcomes is to look at the professional whereabouts of the RMA graduates. Initially the programme mainly focused on helping students achieve a research position in a PhD trajectory. In recent years, however, the programme enlarged its objective and adjusted the curriculum to also respond to new ambitions and career opportunities outside academia. The committee noticed in the materials and the discussions that the objective to prepare students both for an academic career and for a non-academic career gets proper attention in the curriculum.

The committee gathered from the written materials and the discussions on site that RMA graduates are successful in their careers and end up in a wide variety of interesting positions which are commensurate with the domain, level and orientation of the programme. The programme keeps track of its graduates through LinkedIn and provided information on 24 out of 26 alumni who graduated since 2015. All these graduates are currently employed: 11 alumni are in an academic research position, 2 are in research outside academia, 8 have a non-research position and 3 are self-employed. The committee noticed that graduates are active in a broad range of disciplines

that relate to the domain of CAST, which demonstrates that the interdisciplinary profile of the programme prepares students for diverse positions and fields on the labour market.

The group of alumni the committee spoke to also reflected this variety in professional careers. The committee gathered from the discussion that the programme may not have been very outspoken in the past about professional life beyond academia, but that the skills graduates had acquired - and students are still acquiring - are transferable to different professional situations. The alumni indicated they are available to speak to current student cohorts about their work and thought it would be a value added if CAST students would learn about all possible career paths. Alumni also emphasised that they had a great time during CAST in pursuing their individual scholarly interests. In this regard, they very much liked the research internship: this extensive placement period in the third semester provides an opportunity and sufficient time to reflect about possible topics for the thesis and test in a professional but safe environment a possible career path. According to the committee, the CAST programme has made good progress in paying attention to 'life after CAST', which results in graduates finding relevant research-informed positions both inside and outside academia.

Considerations

The committee considers that RMA students who graduated from the CAST programme have the necessary competencies to move on in their career. Based on the results from its thesis review, the committee is very confident that graduates have achieved all learning outcomes: since the proof of the pudding is in the eating, the thesis quality confirms that the CAST programme has been doing a good job.

Similarly, alumni end up in a wide variety of interesting positions which are commensurate with the domain, level and orientation of the programme. The committee considers that the alumni are successful in their respective careers,

which in turn is a positive indication that graduates have indeed achieved the programme learning outcomes.

The committee thinks highly of both thesis quality and alumni performance: this appreciation is a compliment to the qualities and competencies of the individual students and graduates, as well as to the efforts of the staff who – in line with the mentor-mentee model – supervised students and provided informal and formal feedback on their research work. Moreover, the committee appreciates the explicit attention of the CAST programme to aligning learning outcomes, course objectives, teaching activities and assessment: this approach ensures that students manage to meet the learning outcomes upon successful

completion of the programme and that graduates effectively find a position on the labour market.

Given the considerable workload for students in producing the thesis and for staff in supervising the students and reviewing their drafts, the committee advises the programme to check whether the current demands in terms of thesis size are still relevant and feasible.

Based on the interviews and examination of the underlying documentation, the assessment committee concludes that the RMA Cultures of Arts, Science and Technology **meets standard 4, achieved learning outcomes.**

Attachments

Attachment 1 Assessment committee

Jan Baetens, chair

Jan is professor of Cultural Studies at the Arts Faculty of KU Leuven. He works in the field of poetry and French literary history and is specialised in the analysis of so-called minor genres, such as comics and graphic and photo-novels. Professor Baetens has extensive accreditation experience as committee member and chair.

Jen Southern, member

Jen is artist and lecturer in Fine Art and New Media and Associate Director at the *Centre for Mobilities Research* at Lancaster University, where she obtained an art practice based PhD. Dr. Southern's work is a hybrid of art practice and mobilities research and has been exhibited internationally.

Teun Zuiderent-Jerak, member

Teun Zuiderent-Jerak is Associate Professor of Transdisciplinary Science & Technology Studies at VU Amsterdam. His research brings together intervening in practices and furthering scholarly understanding of them. Professor Zuiderent-Jerak has been involved in external assessments before.

Viktoria Tkaczyk, member

Viktoria is professor at the Musicology and Media Studies Department of the Humboldt University in Berlin, where she works on technologies and knowledge techniques in sciences and humanities. Professor Tkaczyk was assistant professor in Arts and New Media at the University of Amsterdam.

Alice Quinn Banville, student member

Alice has a bachelor's degree from Trinity College Dublin in History of Art and Architecture and Classical Civilisations. She is a self-employed art researcher. At the time of the site visit, Alice was about to finish the Research Master Arts and Culture at the University of Amsterdam.

The assessment committee was supported by **Mark Delmartino**, external NVAO-certified secretary.

All committee members and the secretary signed a declaration of independence and confidentiality, which were submitted to NVAO.

Attachment 2 Programme of the assessment

Location: online

Wednesday 24 November 2021

09.00 Internal panel meeting

09.30 Session with Programme Management and Faculty Board

10.30 Session with students

11.30 Session with alumni

12.00 Lunch and internal panel meeting

13.00 Session with Staff and Educational Programme Committee

14.15 Session with Board of Examiners, Assessment Support Team and Student Advisor

15.30 Session with Programme Management

16.15 Internal panel deliberations

17.15 Feedback to programme stakeholders

A list with the names of the participants is available at AeQui.

Attachment 3 Documents

Information materials

- Self-Evaluation Report Research Master Cultures of Arts, Science and Technology, Maastricht University, October 2021.
- Annexes to the Critical Reflection RMA CAST:
 - List of developments based on recommendations from previous reviews
 - Intended learning outcomes related to Dublin Descriptors
 - Intended learning outcomes linked to courses
 - Course descriptions
 - External assessment research groups
 - Staff overview
 - Main research activities and publications of lecturers
 - CAST Internship institutes 2015-2020
 - Table of assessment
 - Assessment grading table
 - Careers Alumni MSc CAST
 - CAST Thesis titles 2015-2021

Additional information

- The programme set up a digital base room, which contained the following documentation:
 - Sources referred to in the Self-Evaluation Report
 - Assessment materials relating to the Board of Examiners and Assessment Support Team
 - Materials produced by the Educational Programme Committee
 - Course Evaluations
 - Programme Evaluations
 - Course Materials
- On request of the assessment committee, the programme provided a sample of student assignments in the domain of 'Arts'.

Graduation products

The assessment committee has studied the theses and their assessment of 15 students who graduated the programme between 2017 and 2020. A list with student numbers is available at AeQui.