

RESEARCH REVIEW

Academic Centre for Dentistry Amsterdam

ACTA

2014-2019

ONDERZOEKERIJ

De Onderzoekerij
Vondellaan 58
2332 AH Leiden

Phone: +31 6 24812176

Email: info@onderzoekerij.nl

Internet: www.onderzoekerij.nl



Contents

Preface	4
1. Introduction	5
1.1 Terms of reference for the assessment.....	5
1.2 The Review Committee.....	5
1.3 Procedures followed by the Committee.....	5
2. Assessment	7
2.1 Organization, strategy and targets.....	7
2.2 Research quality.....	7
2.3 Societal relevance.....	10
2.4 Viability.....	11
2.5 PhD programme.....	11
2.6 Recommendations.....	13
3. Summary	14
Appendix A - Programme of the site visit	15
Appendix B- Quantitative data	16



Preface

December 17, 2020

This assessment report of the research quality at ACTA (2014-2019) was conducted in accordance with the Standard Evaluation Protocol (SEP) 2021-2027. The assessment is based on documents provided by ACTA prior to the site visit and on meetings and interviews with the respective management, groups of senior and junior researchers, and PhD student representatives, November 9th and 10th 2020. Due to the COVID-19 pandemic and the associated restrictions, the site visit was held as a remote online visit. The report includes assessment of the quality and the societal relevance of research conducted by ACTA as well as recommendations for improvements where appropriate.

Anne Marie Lynge Pedersen

Chair of the Review Committee



1. Introduction

1.1 Terms of reference for the assessment

The quality assessment of research of the Academic Centre for Dentistry Amsterdam (ACTA) is carried out in the context of the Standard Evaluation Protocol (version 2021-2027) for Public Research Organisations by the Association of Universities in the Netherlands (VSNU), the Netherlands Organisation for Scientific Research (NWO), and the Royal Netherlands Academy of Arts and Sciences (KNAW).

The Review Committee was asked to assess the scientific quality and the relevance and utility to society of the research conducted by ACTA in the reference period January 1, 2014 to December 31, 2019, as well as its strategic targets and the extent to which it is equipped to achieve them. Accordingly, the following three main criteria were considered in the assessment: research quality, relevance to society, and viability. During the evaluation of these criteria, the Review Committee was asked to incorporate four specific aspects: Open science, PhD policy and training, academic culture and human resources policy.

This report describes findings, conclusions and recommendations of this external assessment of the research of at ACTA.

1.2 The Review Committee

The Board of the University of Amsterdam appointed the following members of the Committee for the research review:

- Prof. Dr. Anne Marie Lynge Pedersen, University of Copenhagen (chair)
- Prof. Dr. Richard Watt, University College London
- Prof. Dr. Alvaro Della Bona, University of Passo Fundo
- Dr. Josefine Hirschfeld, University of Birmingham
- Dr. Bettina Richter, 3M Oral Care
- DDS, PhD student Milica Jevdjevic, Radboud University Nijmegen

The Board of the University of Amsterdam appointed Drs. Esther Poort of De Onderzoekerij as the Committee secretary. All members of the Review Committee signed a declaration and disclosure form to ensure that the Committee members made their judgements without bias, personal preference or personal interest, and that the judgment was made without undue influence from the institutes or stakeholders.

1.3 Procedures followed by the Committee

Prior to the remote online visit, the Committee reviewed detailed documentation comprising the self-assessment report of the institute including appendices.

The Committee proceeded according to the Standard Evaluation Protocol (SEP) 2021-2027. The assessment was based on the documentation provided by the institute and interviews with their respective management, groups of senior and junior researchers, and PhD student representatives. The online meetings and interviews took place on November 9 and 10, 2020 (see Appendix A).

The Committee discussed its assessment during its final session of the site visit. The Committee chair had the coordinating role in the writing procedure and delegated the writing of sections to members of



the Committee. The members of the Committee commented by email on the draft report. The draft version was then presented to ACTA for factual corrections and comments. Subsequently, the text was finalised and presented to the Board of the university.



2. Assessment

2.1 Organization, strategy and targets

The Academic Centre for Dentistry Amsterdam (ACTA) is the collaborative Faculty of Dentistry of the University of Amsterdam (UvA) and Vrije Universiteit Amsterdam (VUA). This collaboration was founded in 1984. The boards of both the UvA and VUA share responsibility for the research performed at ACTA.

The core mission of ACTA is to provide dental education and dental care and to perform dental research. Consequently, ACTA's management is divided into three Institutes: the Education Institute, the Oral Care Institute (Dental Hospital), and the Dental Research Institute, responsible for all research and PhD training programme.

The research strategy of ACTA aims to include all biological, basic and clinical research aspects related to the health of the oral cavity and craniofacial tissues and dental patient well-being, including the reciprocal interaction between oral and general health.

In 2011 and 2012, the institute received two grants for so-called 'Research Priority Areas' (RPAs) from the UvA. With these grants, the university aimed to strengthen its focus and interdisciplinary collaboration and to enhance research quality. It was decided to convert these RPAs into two main research programmes, including all twelve former research programmes, namely 'Oral Infections and Inflammation' (OII) and 'Oral Regenerative Medicine' (ORM).

In addition, ACTA has worked on strengthening research into educational aspects (Research in Education programme) and on developing manual clinical skills.

In the previous research evaluation report (2014), ACTA was recommended to consider expanding the research programmes to include public health and oral prevention. According to the self-assessment report (2014-2019), ACTA has strengthened and expanded its public health research efforts and its awareness of societal relevance. In 2018, ACTA commissioned a report exploring the possibilities of expanding research in the field of public health, which led to a reinforcement of the importance of oral health in the context of public healthcare. Consequently, it was recognised that the two existing programmes were intertwined and that public health and applied prevention were positioned as a shell around the two more biology-oriented programmes. Also, it was questioned whether a third programme on public health would fit into the dynamic of the two existing programmes, and whether sufficient 'critical mass' and funding were available. The Committee understood that until now, ACTA has not taken any final decision on constructing a formal programme on oral public health.

The Committee recognizes that within the two research programmes, a large portion of research is translational and of societal relevance, and that dentistry is strong in applied oral prevention. However, it is a matter of concern to the Committee, whether the current structure with public health and applied prevention surrounding the two major research programmes, adequately serve the purposes of ACTA's mission and are properly operating within the two research programmes. It is a concern that the current structure may 'dilute' research within the field of public health and applied prevention. According to the Committee, the natural incorporation of public health research could be strengthened by e.g. provision of relevant methodological expertise in public health-related research within the programmes.

2.2 Research quality

The quality of the research performed at ACTA is of a very high standard. Thus, ACTA's research efforts reached international recognition and outstanding ranking, subsequently improving from 8th, 4th and



now 2nd place, in the QS World University Rankings by Subject for Dentistry in 2017, 2018, 2019/2020, respectively.

The Centre for Science and Technology Studies (CWTS) conducted a study on the research performance of ACTA by comparing its scientific output with a benchmark. In spite of the potential omission of certain publications, the CWTS analysis showed that ACTA consistently performs with high impact as defined by the Mean Normalized Citation Score indicator (MNCS; average: 1.25, which represents 25% above the world mean).

ACTA has the policy to optimize the connection between clinicians, clinical researchers and the basic scientists to ensure that the basic scientists are confronted with clinically relevant problems, which further optimizes the validation of the scientific results. The Committee learned about several interesting examples of research projects, which are the result of this policy. Examples include research performed in top referral care clinics in which basic scientists are involved in clinical problems, addressing issues like orofacial pain, salivary gland dysfunction, peri-implantitis and adverse reactions to dental materials and medical devices, resulting in the development of evidence-based clinical guidelines for dental practice and participation in the national 'Knowledge Institute of Oral Care'.

ACTA was strong in attracting research funding during this assessment period (2014-2019). The most salient efforts were large-scale projects that share resources with partners within the oral care industry and other research partners. During the assessment period, ACTA received four EU 'Eurostar projects' and four STW grants (NWO-TTW). At the same time, the second flow funding for (basic) research has declined during the assessment period. Although different kinds of support are available for scientific staff, planning to apply for grants, the Committee recommends a more systematic and intensified approach to promote especially young researchers opportunities for larger grant applications.

Research facilities are excellent for both basic and clinical research, including well-equipped laboratories and clinical facilities with a large number of patients treated at ACTA and Amsterdam UMC.

ACTA has taken the initiative to make dental students more interested in research and to ensure recruitment of talented persons to dental research. Thus, all dental students (BSc and MSc) actively participate in research projects during a four-months internship in research, followed by a Bachelor and/or Master's thesis. Furthermore, talented dental graduates are offered a one-year residential internship in which they become acquainted with research and post-initial research training (maximum of 5 students per year). The Committee is pleased with such initiatives as it is critical for dental research to attract more researchers with an educational background in dentistry.

Overall, ACTA has been able to demonstrate high standards in research quality, funding, and education. Moreover, effective recruitment strategies are in place, especially for PhD students. ACTA has a clear vision with a leadership that supports this vision and has been developing strategies to achieve their goals in alignment with SEP 2021-2027.

Open Science

ACTA follows the policies of both parent universities and publishes as much as possible in open science journals. It is around 40% during the assessment period.

ACTA has a broad perspective on what Open Science entails. The Committee was pleased to learn that ACTA aims at involving the patient in research projects as end-user in the advisory board.

Regarding data management, ACTA is in the process of making all their data publicly available and has acquired several tools to make this possible, including a repository in which all research data can be



shared before, during and after the research. ACTA strongly encourages that researchers share all their data according to FAIR (Findable, Accessible, Interoperable, Reusable) principles. Since April 2019, ACTA has recruited a policy officer ('data protection officer or data steward') responsible for RDM.

The Committee is convinced the processes in place regarding Open Science are adequate.

Academic Culture

The PhD student representatives stated that the cultural atmosphere is excellent at ACTA, and that it is a free place to express their ideas.

The Committee got the impression that the working culture is very supportive and participatory, and is a powerful aspect of the success of ACTA. The Committee also noted that the scientific staff at all levels was dedicated, creating a good collaborative and vibrant environment.

All PhD students take a mandatory course on research integrity. Furthermore, ethics and scientific integrity have received increased attention in the past few years. Scientific integrity is a topic of conversation during the six-weekly meetings of the faculty board with the professors and associate professors.

ACTA has its own local Ethical Review Board (ERC), which conducts a marginal quality assessment of all research performed at ACTA (including student theses). Part of the ERC review is a Data Privacy Impact Assessment, as defined in the General Data Protection Regulation (GDPR).

For clinical research, ACTA uses the 'Medical Ethics Review Committee' (MERC) of the Amsterdam University Medical Centre (Amsterdam UMC, both AMC and VUmc). The MERC must approve all research projects involving human subjects and covered by the 'Wet medisch-wetenschappelijk onderzoek met mensen' (WMO, i.e. Medical Research Involving Human Subjects Act), before submission of the research protocol to the Medical Ethics Committee. Before a protocol is submitted to the MERC, it must be approved by ACTA's ERC.

In 2016, ACTA established a 'Scientific Research Committee' (Commissie voor Wetenschappelijk Onderzoek; CWO), consisting of the Director of Research, the programme directors, departmental chairman, the Director of ACTA Dental Research BV and the coordinator of the Research Institute. The CWO determines the research policy and assesses the new research proposals. The CWO also advises the Dean on the eligibility of the proposed work within ACTA.

The Committee is pleased with the processes in place for ensuring research integrity.

Diversity

There has been an apparent effort to balance the gender proportion among professors during the assessment period. Yet, male professors are still predominant. Currently, ACTA has 8 female professors and 24 male professors. The Board of directors is composed of one woman and four men.

The student population within dentistry at both undergraduate and PhD level is one of the most diverse within both universities. In fact, the PhD student representatives consider the diversity within ACTA as an important asset. The Committee was pleased to learn that diversity of the educational and scientific staff is developing and slowly following the same trend.

The Committee noted that obtaining a well-balanced staff with respect to gender and cultural background still requires some additional effort. The Committee was pleased to learn that ACTA recently appointed a diversity officer and has clear policies on diversity. Among other things, this policy



has led to the promotion of many female researchers to more senior roles or salary scales, as well as assisting female researchers in obtaining grants or research chairs aimed explicitly at female scientists. The interviews during the online site visit confirmed that ACTA is very motivated to attract new scholars who contribute to the diversity in different aspects. The Committee encourages ACTA to further intensify its efforts towards a better balance regarding gender. This should be given priority in future recruitment and talent development policies.

2.3 Societal relevance

ACTA expresses a strong commitment to societal relevance and impact alongside its high expectations for research quality. The self-assessment report comprises a substantial number of examples of societal benefits from ACTA activities.

ACTA strives to enhance the societal relevance by integrating clinical fields like periodontology, restorative dentistry and dental materials with basic research, with the aim of developing clinical preventive and therapeutic strategies based on science.

Research within public health focuses on reducing health inequalities. Examples include involvement in two large longitudinal cohort studies in Amsterdam, one following children and parents (starting from pregnancy) and another following 5-6 different ethnic communities. Both studies are conducted in close collaboration with the Faculty of Science and the Faculty of Social and Behavioural Sciences from the UvA.

Researchers from ACTA are often consulted for societal matters, and appear in the news. ACTA is also open to using various media, e.g. YouTube, television, to disseminate research results relevant to the society and for education of the broad non-dental, non-academic public.

The small additional programme 'research in education' is established to ensure and improve the quality of the dental education, particularly focusing on optimizing the treatment of patients, and the long-term impact on the improvement of public oral health. In this regard, the simulation facilities are extensively used for training.

Research on adverse reactions to dental materials and medical devices and development of organic bone, skin and mucosa models have obtained attention and interest from industry and manufacturers of medical devices, and can potentially be used in future to develop new standards for biosafety.

Moreover, ACTA works on defining and sustaining good oral health using systems-biology approaches (-omics) in collaboration with several industrial partners and the Netherlands Organisation for Applied Scientific Research.

ACTA also has a strong link to Dutch dentists through postgraduate courses and through the Dutch Dental Journal, where ACTA researchers publish scientific information and guidelines for dental professionals.

ACTA cooperates with 'Health Holland', a Ministry of Economic Affairs funded national research sector aimed at improving quality of life and healthcare in the Dutch population. As a result of this collaboration, a further public-private partnership could be secured, namely ORANGE Health.nl, which promotes oral and general health in the Netherlands. Thus, ACTA directly collaborates with national policy makers, which may help to translate their research outcomes into benefits for society. The Committee encourages ACTA to be prepared for this challenge and invest in the new skills (in particular statistical expertise), needed to engage optimally in this Public-Private Partnership.



The Committee acknowledges the initiatives taken to promote societal relevance and to address public health issues. It is quite promising, but the focus on public health needs to be further strengthened. Thus, studies on oral public health are complex and require expertise in epidemiological and longitudinal statistical analyses. Perhaps the strategies to enhance societal relevance need to be revisited to define the focus (based on ACTA's (1) mission and vision; (2) research staff and facilities; and (3) funding availability and society priorities) to guide the Strategic Plan.

2.4 Viability

During the assessment period, there has been a very good progress on consolidating the two major research programmes and attempts to integrate public health and applied preventive research. ACTA's research strategy is broad, and has a strong track record in biological aspects of oral health.

ACTA has succeeded with good leadership and excellent research performance in the two major programmes, resulting in international recognition. ACTA has also performed well in taking initiatives to conduct translation research, resulting in the development of clinical evidence-based guidelines for use in dental practice. However, strengthening the focus on public health issues would probably maximize ACTA societal impact and visibility. It is well known that low social status is associated with poor oral health, low compliance as well as polymorbidity and polypharmacy, which comprises oral health. In addition, it would also strengthen the ACTA strategy to address the issue regarding the growing proportion of older people in Dutch society.

The liaison officer is an important driving force in the acquisition of contacts with the business community and has weekly consultations with researchers and business. Additionally, ACTA encourages applications for external funding. Every year a budget of €150-200,000 is set aside for researchers who want to apply for external consulting to support them professionally in writing the grant applications.

Senior researchers at ACTA have obtained large external funding grants during the assessment period. However, it appears that the options for obtaining external funding are highly competitive. The Committee encourages ACTA to further strengthen the funding strategy, including strengthening incentive structures and administrative support and guidance in writing grant applications. Thus, most young researchers with expertise to apply for funding are also extensively involved with teaching. A dedicated office to assist on grant application paperwork would be most appreciated by the researchers.

The Committee noted that some of the early career scholars felt vulnerable and uncertain about their career prospects. An area of concern in this respect is the observation that the possibilities to become a postdoc are limited at ACTA. The Committee recommends that ACTA considers ways to safeguard better career progression for junior staff.

Research activities are supported by excellent facilities and most necessary research competences and expertise are available to conduct the relevant research projects at ACTA. ACTA also reaches out to other areas of expertise in the industry, bioinformatics and medical disciplines.

Overall, the research programmes at ACTA are considered nationally and internationally relevant, viable, and the research goals are achievable.

2.5 PhD programme

The Committee was quite impressed by the dedication and enthusiasm of the PhD students at ACTA.



PhD students perform a substantial part of the research at ACTA. ACTA has PhD students who are funded by the faculty, with full-time salaries. The number of faculty funded PhD students had declined from 35 in 2014 to 24 in 2019. This decline is ascribed to a policy change during this period as these PhD students usually had 4 years of funding, but this is now reduced to 3 years of funding. The majority of PhD students are funded through research grants, through industry partnerships, travel grants or scholarships from their home-countries, and through self-funding (mainly dentists working part-time on voluntary basis towards their PhD). ACTA aims to further increase the inflow of externally funded PhD students. ACTA appears to be in a good position to realize this aim. Thus, ACTA is currently receiving a growing number of spontaneous international applications of high-quality candidates. ACTA does not have an explanation for this growing interest, but considers it most likely related to the high QS World University Rankings by Subject for Dentistry in recent years.

In addition, ACTA actively encourages its master candidates to become PhD students, e.g. through the Honours Research Master's programme. This programme provides introduction in research of highly talented dental students in order to give them a head start to a PhD project, while at the same time the honours candidate will obtain the dentistry degree.

The execution and quality assurance for PhD students' education is organised in the School of PhD Studies under the responsibility of its Director. The Doctoral Education Committee ACTA (DECA) supports all PhD candidates, and is continuously looking for ways to improve the PhD education. The DECA is headed by the Director for PhD studies. It comprises of three senior researchers, two policy officers and a PhD student member (who is also involved in the ACTA-wide PhD council). In addition to regular meetings with the PhD students, the DECA ensures that PhD students receive education corresponding to at least 30 ECTS credits and that they all take the mandatory courses (Statistics, English and Scientific Integrity). PhD students are also encouraged to take external courses, e.g. for graduate schools in the field of Health and Life Sciences within VUA, the AMC Graduate School, MOVE and graduate schools within the Faculty of Science of the UvA. Besides, PhD students are encouraged to perform part of their studies abroad. Approximately 30-40% of (internal) PhD students make use of such an external internship abroad during their PhD studies. The Committee supports these practices of encouraging PhD students to broaden their horizon.

PhD students are involved in education of the bachelor and master dental candidates. PhD students can fulfil part of their compulsory education programme by obtaining a customized 'Basic Education Qualification' ('BKO').

In the period from 2011 to 2016, 56 PhD students were enrolled at ACTA (external PhD students not included). Of 56 started projects, 11 projects (20%) were completed in 4 years, 14 projects (25%) were completed in 5 years, and 4 projects (7%) were in completed in 6 or 7 years, while 11 projects (20%) were stopped. Another 16 projects (29%) were still pending. Based upon these numbers, the time for completing a PhD thesis appears to be too long. The Committee recommends ACTA to keep monitoring the success rate and, if necessary, to take further measures that lead to a substantial increase.

During the online visit, the Committee met with very enthusiastic and committed PhD student representatives, who were very impressive advocates for ACTA. The Committee noted that the PhD students feel well embedded in their research group. They appreciated the flexible, informal atmosphere of ACTA. The PhD students were content with the available courses provided by ACTA and other graduate schools. Without exception, the PhD students highly appreciated the broad range of opportunities ACTA gives them, such as obtaining the Basic Education Qualification or attending international conferences. The PhD students were pleased with the frequency and the quality of supervision they received.



The Committee endorses the policy that each PhD student has at least two different supervisors, and it was pleased to learn that PhD students do not seem to encounter problems with co-authorship.

A total of 125 PhD students successfully defended their thesis in the period from 2014 to 2020. As described in the self-assessment report, almost all of them obtained or kept a relevant position, matching their level of education. Most candidates secured a permanent position relatively quickly after obtaining their PhD degree. At the same time, many of the PhDs with dental background were able to stay at ACTA or opted to work as a dentist or specialist in a private practice.

Overall, the Committee gained the impression that the PhD programme is strong in terms of planning, organization, teaching, monitoring progress including publications, and care for PhD students.

2.6 Recommendations

The Committee noted that the organization of ACTA into two major formal research programmes and the smaller 'Educational Research' programme is now well-consolidated. ACTA has performed successfully in terms of obtaining funding, research production and international recognition, expansions of cross-disciplinary national and international research collaborations and performance of translation research of societal relevance.

However, the Committee encourages ACTA to address current and future public health issues and to strengthen the integration of public health research into the two main programmes or consider the implementation of a third programme within the field of public health and applied prevention. This could lead to strengthening of research with a substantial societal impact and relevance.

In the current organization, public health research is permeating the two main research programmes and structures ensuring integration of public health research are unclear. The Committee, therefore, recommends ACTA to revisit its strategy, mission and vision, research staff and expertise and funding availability to strengthen public health research and societal relevance.

During the assessment period, the researchers have performed successfully with respect to obtaining external funding. The Committee, encourages ACTA to have a continuous focus on research funding strategy and provide administrative support and guidance of researchers concerning writing grant applications.

The Committee recommends ACTA to implement supportive structures for young researchers with regard to career planning and research funding. These may include the creation and promotion of postdoc positions, as well as of a (peer) mentoring system. In the context of career planning for junior academic staff, a high level of transparency and openness is crucial for early career researchers so they can have a better understanding of their options and anticipate future opportunities. Regarding the PhD candidates, the Committee recommends ACTA to keep monitoring the success rate and, if necessary, to take further measures that lead to a substantial increase.

Further, the Committee encourages ACTA to continue striving to improve diversity in the wider sense and to achieve a balanced gender distribution amongst all research staff and particularly at managerial levels.



3. Summary

Overall, the quality of the research performed at ACTA is of a very high standard. Research facilities are excellent for both basic and clinical research, including well-equipped laboratories and clinical facilities. ACTA has performed successfully in terms of research production and international recognition, expansions of cross-disciplinary national and international research collaborations, and performance of translation research of societal relevance.

ACTA organises the research in two main research programmes, namely 'Oral Infections and Inflammation' (OII) and 'Oral Regenerative Medicine' (ORM). During the assessment period, there has been a very good progress on consolidating the two major research programmes. In addition, the Committee appreciates ACTA's attempts to strengthen public health research efforts and the awareness of societal relevance. In the current organization, public health research is permeating the two main research programmes and structures ensuring integration of public health research are unclear. The Committee encourages ACTA to further strengthen the integration of public health research into the two main programmes or consider implementation of a third programme within the field of public health and applied prevention.

The research programmes at ACTA are considered nationally and internationally relevant, viable, and the research goals are achievable. However, strengthening the focus on public health issues would probably maximize ACTA societal impact and visibility. Therefore, the Committee recommends revisiting the strategy, mission and vision, research staff and expertise and funding availability with respect to strengthening public health research and societal relevance.

ACTA was strong in attracting research funding during this assessment period. The most salient efforts were large-scale projects that share resources with partners within oral care industry and other research partners. At the same time, the second flow funding for (basic) research has declined during the assessment period. The Committee encourages continuing and intensifying the focus on research funding strategy and providing administrative support and guidance of researchers in relation to writing grant applications.

The working culture is very supportive and participatory. The Committee is pleased with both the processes in place for ensuring research integrity and the processes in place regarding Open Science. Regarding diversity, the Committee noted that obtaining a well-balanced staff with respect to gender and cultural background still requires some additional effort.

ACTA expresses a strong commitment to societal relevance and impact. The self-assessment report comprises a substantial number of examples of societal benefits from ACTA activities, including developing clinical preventive and therapeutic strategies, disseminating research to the non-dental public, and the close links to Dutch dentists.

The Committee noted that some of the early career scholars felt vulnerable and uncertain about their career prospects. An area of concern in this respect is the observation that the possibilities to become a postdoc are limited at ACTA.

In the period from 2011 to 2016, 56 PhD students were enrolled at ACTA (external PhD students not included). The PhD programme is strong in terms of planning, organization, teaching, monitoring progress including publications, and care for PhD students. However, the time for completing a PhD thesis appears to be too long. The Committee encourages ACTA monitoring the success rate of PhD candidates and, if necessary, take further measures that lead to a substantial increase.



Appendix A - Programme of the site visit

Monday November 9

Time	Part
13:00 - 16:00	Meeting committee
16:00 - 17:00	Discussion with the management
17:00 - 17:15	Break
17:15 - 18.15	Discussion with PhD students

Tuesday November 10

Time	Part
12:30 - 13:00	Meeting committee (preparing questions)
13:00 - 14:00	Discussion with senior staff
14:00 - 14:15	Break
14.15 - 15.15	Discussion with junior staff (assistant professors, post docs)
15-15 - 15.45	internal discussion committee/ formulating questions management
15:45 - 16.15	2nd Discussion with the management
16:15 - 18.00	Committee meeting (making draft for report)
18:00	Presentation first impressions



Appendix B- Quantitative data

Table 1 Research staff in fte

	2014		2015		2016		2017		2018		2019	
	#	fte	#	fte	#	fte	#	fte	#	fte	#	fte
Assistant professor	27	x	25	17.1	25	16.7	25	15.9	24	14.6	27	17.5
Associate professor	20	x	21	17.9	22	18.0	26	18.4	27	22.2	27	22.5
Full professor	9	x	12	8.7	13	10.0	14	11.4	14	12.3	14	11.5
Postdocs	17	x	27	22.7	28	23.3	32	24.0	33	26.9	30	24.5
PhD candidates traditionally funded*	35	27.1	33	27.7	26	25.0	21	17.0	20	15.3	24	17.2
PhD candidates funded alternatively*	110	-	120	-	145	-	143	-	170	-	173	-
Total research staff	218	x	238	94.1	259	93.0	261	86.6	288	91.3	295	93.1

ACTA has (had) PhD students funded by the faculty itself, with full-time salaries for 4 years. This number is somewhat declining, due faculty funded PhD students for a maximum of three years (EU schemes); the majority of PhD students is funded through research grants, through industry partnerships, travel grants or scholarships from their home-countries, and through self-funding (mainly dentists working part-time on voluntary basis towards their PhD).

x fte were not recorded for 2014

Table 2 Funding in fte

	2014	2015	2016	2017	2018	2019
Direct funding	40.6	38.6	46.2	42.4	41.0	43.7
Research grants	5.9	4.9	3.9	3.6	4.2	3.5
Contract research	19.6	28.1	27.8	23.3	29.6	24.8
Total funding	66.1	71.6	77.9	69.3	74.8	72.0

Table 3 PhD candidates

Enrolment															
Starting year				Graduated in year 4 or earlier		Graduated in year 5 or earlier		Graduated in year 6 or earlier		Graduated in year 7 or earlier		Not yet finished		Discontinued	
	M	F	M+F	#	%	#	%	#	%	#	%	#	%	#	%
2011	5	7	12	3 (25%)		5 (42%)		7 (58%)		8 (67%)				4 (33%)	
2012	6	7	13	1 (8%)		10 (77%)		-		-		1 (8%)		2 (15%)	
2013	4	1	5	1 (20%)		2 (40%)		3 (60%)		-		2 (40%)			
2014	1	6	7	3 (43%)		4 (57%)		-		-		2 (29%)		1 (14%)	
2015	4	5	9	2 (22%)		3 (33%)		-		-		4 (44%)		2 (22%)	
2016	2	8	10	1 (10%)		-		-		7 (70%)		2 (20%)		1 (10%)	

