RESEARCH STRENGTHENS

Strategic research policy for 2017 and beyond
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1. INTRODUCTION
In the last 15 years, practice-oriented research has developed significantly and earned its place in the Dutch knowledge landscape. Universities of applied sciences have worked hard to reinforce the standing of their research to create a qualitative incentive for both professional practice and education. Practice-oriented research has grown into an essential component of the societal responsibilities of universities of applied sciences. This is also provoking positive responses from stakeholders; they are increasingly recognising and defining the importance of practice-oriented research. So, a lot has been achieved in a short time. However, if the research ambitions of universities of applied sciences are to be achieved, it is important to continue the development of practice-oriented research in the years to come, in terms of both quality and quantity (The Netherlands Association of Universities of Applied Sciences, 2017).

The Hague University of Applied Sciences also wants to continue to expand and strengthen its research. The latest research policy was adopted in 2009 (The Hague University of Applied Sciences, 2009). Since then, research has developed in many areas and there have been plenty of changes, both inside and outside THUAS. This document sets out the new strategic research policy at The Hague University of Applied Sciences as an implementation of the institutional plan Global Citizens in a Learning Society. The Hague University of Applied Sciences on route to 2020 (The Hague University of Applied Sciences, 2015a). The institutional plan defines the strategic priorities for the coming years. The Hague University of Applied Sciences strives for higher quality of education, in part through encouraging global citizenship, for ongoing development of the international profile, and for the creation of a networking university of applied sciences. Research is ‘a powerful tool for enhancing the quality of education’. It strengthens the investigative ability of lecturers and students, helps generate innovative insights, and ensures that education reflects essential practical requirements.

As a knowledge and network institution, research is the second main task of The Hague University of Applied Sciences and is equivalent to education. At the same time, research is extremely valuable for education. There are plenty of good examples of research with impact, as this document will also demonstrate. Our research is usually carried out in close collaboration with professional practice. THUAS scores lower for aspects such as visibility of the research, as well as collaboration with and impact on education. This is partly due to the small volume of research so far. On average, the volume of research at The Hague University of Applied Sciences is lower than that of other universities of applied sciences. In the academic year 2016/2017, 26 professors (14.6 FTE) were employed at THUAS. With 1 FTE professor for more than 1500 students, that figure is below the national average of 1 professor for 1200 students (The Netherlands Association of Universities of Applied Sciences, Hbo in vogelvlucht #hbo cijfers (Higher professional education in a nutshell #hbo figures)). The number of lecturer-researchers and doctoral candidates is also well below the average for the 15 largest universities of applied sciences in the Netherlands. The share of external income in the research budget is also relatively low, at 15%. In universities of applied sciences with a comparable scope, this income can be as high as between 40% and 50% (The Hague University of Applied Sciences, 2015e).

In addition to the volume of research, there are potential qualitative and organisational improvements that can be made to strengthen the impact and visibility of the research. The strategic research policy therefore focuses on five ambitions:

1. **education**: improving exchange and cohesion between research and educational activities.
2. **Professional practice/society**: an improved impact of research on professional practice and research’s effect on society.
3. **Focus**: developing the research themes in greater detail and focusing research accordingly.
4. **Quantity**: expanding the volume of research.
5. **Quality**: continuing to improve and anchor the quality of research.

The strategic policy covers all the research at The Hague University of Applied Sciences. Since April 2015, research groups in the faculties have been working to strengthen the links with education. In addition, four inter-faculty research platforms are focusing on the four profiled research themes of THUAS:

1. **Quality of Life - People and Technology**
2. **Good Governance for a Safe World**
3. **The Next Economy**
4. **Connected Learning**

The research platforms are networks of consultation, coordination and collaboration, which give meaning and focus to the selected research profiling. By far the majority of research groups form part of these platforms.

The strategy has been developed in this document until 2022. Where relevant, 2025 is the final year, because that is the main year in the agendas of the Ministry of Education, Culture and Science and of The Netherlands Association of Universities of Applied Sciences. Chapter 2 outlines the context for the research policy. Chapter 3 focuses on the policy choices and priorities of The Hague University of Applied Sciences, with the five ambitions as the starting point. Chapter 4 looks at the framework conditions for achieving these ambitions. Finally, chapter 5 discusses the implementation of the policy choices and also pays attention to the relationship between the different components. Examples of successful research projects are given at individual points in the text.

This document gives a coherent overview of the strategic research policy at The Hague University of Applied Sciences. Where necessary, it refers to separate documents for implementation at a detailed level.
2. CONTEXT
2.1 Higher professional education (hbo) in the Netherlands

In the Dutch binary system for higher education, the vast majority of students study at a university of applied sciences.1 But universities of applied sciences have only been a formal part of higher education since 1986 (Van Bemmel, 2014). The introduction of the Bachelor’s and Master’s structure in 2002, due to the European collaboration for higher education, was the reason for the decision to develop a research function at universities of applied sciences as well from the start of this century. This is because higher education institutes without a research function are extremely rare in Europe and beyond. That research function varies in terms of history, orientation and scope (EURASHE, 2014, pp. 79-86; Rathenau Instituut, 2015, pp. 86-92; Rathenau Instituut, 2016). Compared with universities, universities of applied sciences in the Netherlands are considerably behind in terms of research, just like newcomers in other countries. According to Hazelkorn (2004, p. 121), this seems to be because of less institutional infrastructure and resources, staff who are qualified for and focused on education, and the lack of a research tradition.

Universities of applied sciences in the Netherlands refer to their research as practice-oriented. Practice-oriented research focuses primarily on developing knowledge to improve professional practice, based on questions arising from practical application. Practice-oriented research serves education, professional practice and society. It is always embedded in society, particularly in the professional environment, and is strongly intertwined with education. Practice-oriented research therefore helps to develop students as future professionals. It also improves professional practice and innovation within social and economic sectors (The Netherlands Association of Universities of Applied Sciences, 2015b, p. 11). In addition to being methodically sound and ethically responsible, practice-based research is therefore also always practically relevant.

In July 2015, the Ministry of Education, Culture and Science published De Waarde(n) van Weten (The Value(s) of Knowledge); the new strategic agenda for higher education and research. This agenda bridges the gap to higher education in the 21st century and provides a quality boost for students and lecturers. The ministry highlights the importance of research for a rich learning environment and places the emphasis for universities of applied sciences on expanding the volume of research (Ministry of Education, Culture and Science, 2015, pp. 28, 29). The investment agenda translates this into the specific ambition to increase the number of professors nationwide by 580 FTE and, from 2024, to achieve a ratio of 1 professor to 720 students.

A range of organisations and advisory bodies have provided input for the ministry’s strategic agenda. An overview of all the information (see appendix 2) highlights the central themes for the strategic research policy at The Hague University of Applied Sciences. To summarise: The research at THUAS must grow, in terms of quality, impact and scope, and primarily in conjunction and consultation with the education and the surrounding area. It is always about the triangle of research, education and (professional) practice, where each of the three elements strengthens the others (see chapter 3) and determines the role of universities of applied sciences in a knowledge-intensive society.

The ambitions from the range of advice and agendas are closely aligned with the ambition from the institutional plan of The Hague University of Applied Sciences: to increase the quality of the education. The central themes of global citizenship, internationalisation and networking university of applied sciences direct The Hague University of Applied Sciences to look outside itself. A strong research function will strengthen this link with the outside world, in The Hague and its surrounding area (see 2.2), and internationally. At the same time, the focus on global citizenship, internationalisation and networking will strengthen the quality of the research.

2.2 The Hague and its surrounding area

Research at universities of applied sciences contributes both to education and to the socio-economic development of the professional field and the region. For The Hague University of Applied Sciences, that is The Hague and its surrounding area. The institutional plan emphasises that THUAS wants to contribute to the development of society, both economically and socially (The Hague University of Applied Sciences, 2015a, p. 7). The Haaglanden region and the city of The Hague have a strongly international nature. The Hague is an important city with global social, political and cultural networks, non-governmental organisations, diplomatic services, multinational companies, and UN and EU organisations. And The Hague presents itself as an international city of peace, justice and security. The Hague is also the political centre of the Netherlands; the city where the national parliament meets and where all the ministries are based. Besides that, it is a large city with all the social issues of employment and unemployment, affluence and poverty, areas that are under enormous pressure from an accumulation of problems. The Hague has great cultural diversity and sharp social segregation.

Many students will subsequently be able to practice their profession in a metropolitan environment, so the proximity of the city is of major significance for The Hague University of Applied Sciences. In addition to the main campus and a sports campus in The Hague, THUAS has campuses in Delft (for technology degree programmes) and in Zoetermeer (for IT degree programmes). THUAS also focuses on collaborations with companies and institutions in municipalities within the region. The Haaglanden region was a City Region until the end of 2014, consisting of...
nine municipalities including The Hague, Delft and Zoetermeer. Since 2015, the Haaglanden City Region has been part of the Metropolitan Region Rotterdam The Hague, consisting of 23 municipalities which have joined forces to make the area more accessible and to strengthen the economic business climate (see www.mrdh.nl). The Hague University of Applied Sciences wants to strengthen the networks, the knowledge circulation and the co-creation with the surrounding area, and practice practice-oriented research plays a prominent role here.
3. AMBITIONS
The strategic research policy at The Hague University of Applied Sciences is based on the following vision on research: Practice-oriented research focuses on knowledge development and circulation to improve and innovate education and professional practice. The research strengthens the profile of THUAS as a regionally and internationally oriented networking university of applied sciences that trains students to be global citizens. This vision is in line with both the THUAS institutional plan and the national visions on research at universities of applied sciences (Andriessen et al, public lecture, 10 April 2014, Ministry of Education; Culture and Science, 2015; The Netherlands Association of Universities of Applied Sciences, 2015b).

This chapter describes the research ambitions of The Hague University of Applied Sciences for the coming period, starting from the triangle of research, education and (professional) practice.

Golden knowledge triangle

3.1 Education: improving exchange and cohesion between research and educational activities

From the first research groups at the start of this century, an important goal of research at universities of applied sciences has been to contribute to the quality and innovation of education. All recent policy documents and agendas from inside and outside THUAS underline this goal (incl. Rathenau Instituut, 2016, p. 9). Roughly speaking, there are three points where research has an impact on education:

1. Innovation and improvement of the content of the curriculum
2. Strengthening the investigative ability of students
3. Professional development of lecturers

The following paragraphs look at interaction between education and research in more detail, which links into the new educational vision for THUAS (The Hague University of Applied Sciences, 2017).

3.1.1 Innovation and improvement of the content of the curriculum

Research produces new knowledge, which is important for the improvement and innovation of curricula and learning environments. In the educational vision at The Hague University of Applied Sciences, each degree programme has an explicitly defined body of knowledge and skills. This contains basic concepts, terms and theories for the knowledge domain of the degree programme and its professional field. This knowledge base has to remain up to date and at the required (Bachelor or Master) level. In addition to the knowledge base, global citizenship is a central theme in the educational vision as a connecting concept, with a lot of attention on international and intercultural orientation, investigative ability, personal development and networks. Ideally, these aspects are presented in an integrated manner. That means: minimising the number of separate modules and linking them to the professional context and the professional field for which the programme is intended. The aspects must be explicitly assessable in the intended learning outcomes of each degree programme. In turn, the intended learning outcomes must be demonstrably covered in education.

The Hague University of Applied Sciences offers good examples of new knowledge that improves curricula, but they are still underrepresented across the full breadth. Its research results should therefore find their way more frequently to the education we provide (The Hague University of Applied Sciences, 2015a, p. 12). To achieve that, it is essential that the degree programmes themselves ask the correct questions. What knowledge do we need to have? Which questions about our discipline do we want to see answered?

3.1.2 The investigative ability of students

In the educational vision at The Hague University of Applied Sciences, investigative ability is crucial for change and innovation in the professional field and in society. Investigative ability consists of three parts: an inquisitive attitude, applying knowledge from research, and doing research yourself. An inquisitive attitude assumes that graduates are observant, curious, cautious and critical, and want to share information. Applying knowledge is about assessing it, making yourself familiar with it and making
good use of (international) academic sources and specialist literature. Doing research yourself implies that graduates can use relevant research methods for relevant professional products, including gathering and analysing data (Losse, 2016). The quality requirements here are the requirements that are common for that profession (Andriessen, 2016).

Knowledge of research is important for preserving a line of research in the curriculum, so students can develop investigative ability. The educational framework at The Hague University of Applied Sciences requires this kind of line of research – ideally integrated into the subjects – for all degree programmes. The methodological quality of research and research education still requires improvement. The research groups can and must play an important role here. This also pertains to (epistemological) questions into the quality of knowledge sources, for example, which enrich and deepen the learning process. Participation in research projects, for instance, allows students to develop investigative ability, increase their reflexive ability, and learn to critically deal with knowledge.

3.1.3 Professional development of lecturers
Since the first research groups were set up, professors have had a role in the professional development of lecturers. Within knowledge circles, lecturers learn about research and their discipline, and professors also support lecturers who are working towards a doctorate. In addition, professors deliver courses, lectures and advice on request about the line of research in the curriculum, or about research methodology. Lecturers are also trained in supporting research and the graduation of students. The strengthening of the research culture with a number of lectures, research lunches, seminars and conferences also contributes to the professional development of lecturers. So, professional development is about doing research yourself, but also about the contribution that lecturers make to the investigative ability of students (see 4.2.2).

The link between research and education can be stronger in terms of breadth and depth. This is not one-way traffic: a close link benefits not only the education but also the research. For example, by lecturers getting a better handle on their research if they explain it to students, or by students assisting them in their research (AWTI, 2015b, p. 20).

Professors, lecturer-researchers, researchers and programme managers are jointly responsible for a stronger link between education and research and this is part of their individual role. The lecturers who are actively carrying out research in particular are helping to develop the cohesion between education and research. They bring students into contact with current and inspiring research and they themselves acquire the latest knowledge and skills. The management of the degree programmes and the faculty ensures that everyone is familiar with their duties in linking education and research, and that they carry them out properly.

3.1.4 Professors
Professors can make a more specific and visible contribution to education, as described in 3.1.1 to 3.1.3. This gives them practical meaning for many – possibly all – students and lecturers. Contributions from professors strengthen the knowledge and understanding of research practices and of the added value of research. Those contributions can be organised in various ways: as part of usage deployment agreements, via agreements as part of the appointment, via planning agreements as part of the Result & Development cycle, and so on. Timetables for professors are always drawn up in consultation with the programme managers. The planned growth of the research makes it easier to differentiate the contributions that professors make to education. Professors can be deployed based on their individual strengths and to suit the specific requirements of degree programmes.

THUAS monitors the deployment of professors with the existing P&C tool. Professors report on the link between research and education in the annual reports and the dean in charge of them assesses them based on the following aspects (see also appendix 5):

1. The research group contributes to the curriculum and the curriculum development of degree programmes, both via the educational content as well as the line of research.
2. All parties involved in the knowledge circle, including the professor, teach students through contact time in all academic years.
3. The research group contributes to the graduation assignments of fourth-year students.
4. The research group contributes to the research ambitions of degree programmes, by partially focusing the research on these.
5. The professional development of lecturers takes place through supervision of the research of lecturers and/or via targeted courses and training sessions.

From 2018, each faculty has one professor who is responsible for improving the link between education and research. This person also participates regularly in faculty management meetings. The duties of the professor are focused on both the policy and practice within the faculty. Of course, the other professors and the lecturer-researchers in the knowledge circle also help with the link between education and research from their own discipline.

3.1.5 Programme managers
The programme manager also plays a crucial role in the link between education and research. Professors coordinate their research with the degree programmes, so that they contribute to the curricula. Because practice-oriented research focuses on questions from professional practice, each degree programme has a research ambition (also backed up by professional practice). Degree programmes should be continuously looking for relevant questions for the development of professional practice; these can thus be a source for practice-oriented research. Working closely with the professor, the programme manager is responsible for articulating these questions from the degree programme. A known problem here is that trainers and programme managers are not always able to present a good research question. This requires focused professional development.

2 The annual reports are on the website for each professor. Better inspection of the publication is important.
In addition, timetabling lecturers in research also requires particular attention. They have to be available and be facilitated, and cover needs to be provided for them in education. This requires adequate planning and organisation. Managing the cover issue can be handled by transparent qualitative and quantitative staffing establishment planning, which is included in the P&C cycle. This is where programme managers have the initiative. The aim is to find the correct blend of duties by lecturers for research, where the existing ratio of lecturer scales 11, 12 and 13 can be used as a benchmark. The formation of the knowledge circle must not detract from the ratio of the lecturer scales; this is the responsibility of the faculty dean.

The arrangements in the Result & Development cycle for lecturers for research also require extra attention. This involves assessing members of the knowledge circle and writing subsidy proposals, together with the professor.

To strengthen the relationship between education and research, the working group Education and Research was set up on the instructions of the Executive Board in January 2017. Professors and programme managers work together as part of this group and the results are primarily practical specifications for this document. For example, the working group examines how objectives can be articulated from within education, and how this can be translated into the research programmes (see appendix 6).

### 3.2 Professional practice/society: an improved impact of research on professional practice and research’s effect on society

Both research and education at THUAS benefits professional practice. THUAS educates competent and innovative professionals and, through research, also contributes to innovation within professional practice – regionally, nationally and internationally. The research is practice-oriented and looks for answers to questions from professional practice and society. So, rather than knowledge circulating in isolation, it is constantly renewed in collaboration with the surrounding area and it adds value to that surrounding area.

As a networking university of applied sciences, The Hague University of Applied Sciences has opted for research platforms and, in time, Centres of Expertise (see 3.3 and 4.1.2) to encourage this impact and collaboration. The content here focuses on the profiling themes for the research platforms:
1. Quality of Life - People and Technology
2. Good Governance for a Safe World
3. The Next Economy
4. Connected Learning

Research into these themes arises from questions from institutions and companies in The Hague and the surrounding area, and from education within THUAS (see 3.1). The results of this research, in the form of knowledge, services or products, shape professional practice and/or help to resolve the specific questions.

THUAS is looking for sustainable relationships with appropriate parties in The Hague and the surrounding area with regard to the profiling themes. THUAS is linking up with at least two strategic partners in the region for each research platform. A Centre of Expertise can be created around an intensively-used network, possibly as a consortium. The connection with the city and the region can also be created in neighbourhood studios, citylabs or other spaces for lecturer-researchers and students. Questions from the neighbourhood are then taken as the basis for practical research for the curriculum. This requires a multidisciplinary approach, linking education and research with everyday life in the neighbourhood.

Attention is also devoted to national and international developments and innovations in professional practice within each theme. For example, via cooperation partners in The Hague and the surrounding area with an (inter)national orientation, but also via international THUAS partners in Europe, Brazil and China. The networks and consortia are also looking to work together with other knowledge institutions, for a strong regional knowledge ecosystem where knowledge is circulated (Ministry of Education, Culture and Science, 2014, p. 56). THUAS gives access to the research results, publications, and specific outcomes and services, and shares them widely. Where necessary, results are protected and, for example, registered in patents. In principle, publications are open access, but the policy is still being aligned with recent national developments.

The Hague University of Applied Sciences wants to improve the link between education and research, and thus contribute to the power and innovation of professional practice and social debate. Both the substantive choices and focused choices in favour of cooperation partners help with this. As a knowledge institution, THUAS can contribute to the development of (regional) society, both economically and socially (The Hague University of Applied Sciences, 2015a, p. 7).

### 3.3 Focus: developing the research themes in greater detail and focusing research accordingly

In 2012, The Hague University of Applied Sciences made substantive choices for the profiling and performance agreements (The Hague University of Applied Sciences, 2012). In consultation with external partners, THUAS chose three themes where they wanted to excel in terms of research, education, and collaboration with professional practice. This was based on internal analyses and available knowledge and experience. In 2012, the themes...
were developed into subthemes and a fourth theme was added in 2015. (As already stated in 3.2), these four themes form the research base for the research platforms (see 4.1):
1. Quality of Life - People and Technology
2. Good Governance for a Safe World
3. The Next Economy
4. Connected Learning

In 2015/16, the research platforms started updating and further specifying the lines of research and research programmes. This was done through consultation with the participating professors, and with internal and external stakeholders from the Hague and the surrounding area. The knowledge coalition also created the Dutch National Research Agenda after wide-ranging consultation. The agenda was published at the end of 2015 on www.wetenschapsagenda.nl – a key reference document.

It was agreed in March 2015 that at least 75% of the research by THUAS will focus on the themes of the research platforms (The Hague University of Applied Sciences, 2015c). In addition, there is limited space for overarching themes, or for specific research themes that are put forward by the professional field or education. The platforms develop Centres of Expertise5 in important areas; these centres act as points of intersection between THUAS and the outside world, and as a space where research, education and the outside world come together.

By making these substantive choices, The Hague University of Applied Sciences has given focus to the research. The research has already applied this focus for a number of years, but the cohesion can still be improved. More cohesion in and via the research platforms and Centres of Expertise fleshes out the profile of THUAS, and that profile can underpin existing and future research. Most of the choices in terms of focus have already been made; now is the time to add the detail. In late 2016, each research platform therefore presented a long-term plan describing how the research theme will be given meaning in the coming years. It presents the central research questions as well as the collaboration with education, practice and the research groups. The long-term plans are interlinked and provide the substance for the cross-THUAS policy. This creates focus and volume, and helps us prevent fragmentation of the limited research funding. Furthermore, it creates a focus in the THUAS research profile. This programme allows consistent decisions to be made about setting up future research groups. A policy memo gives the starting points, frameworks and procedures for that purpose, as well as for the appointment of professors (The Hague University of Applied Sciences, 2017).

3.4 Quantity: expanding the volume of research

The scope of practice-oriented research at THUAS is currently still too modest for it to be able to assume a particularly powerful position within the Dutch knowledge infrastructure. Growth in financing is the most essential prerequisite for the continued development, profiling, impact and quality of practice-oriented research (The Netherlands Association of Universities of Applied Sciences, 2017). The strategic agenda 2015–2025 from the Ministry of Education, Culture and Science plans additional investment for practice-oriented research at THUAS. The Dutch National Research Agenda and the investment agenda of the knowledge coalition also provide an important national incentive for additional investment across the full breadth of the national knowledge infrastructure. It is essential that this national incentive is translated into an incentive at the level of the universities of applied sciences. In other words, that universities of applied sciences release additional basic financing for practice-oriented research. Onderzoek met Impact (Research with Impact), the strategic research agenda 2016–2020 from The Netherlands Association of Universities of Applied Sciences (2016), refers to the need for a (structural) increase in the basic financing to create a strong research infrastructure.

Expanding the research is also necessary to continue strengthening education. The strategic agenda from the ministry is informed by plentiful advice about the pleas for a significant expansion of research at the universities of applied sciences. If this practice-oriented research is to play a role in the region – in social challenges, public bodies, SMEs and major companies – then it must continue to grow. Being better able to serve education is the most important argument for expanding the number of research groups in the various policy agendas (Ministry of Education, Culture and Science, 2015, pp. 28, 29, 79; The Netherlands Association of Universities of Applied Sciences, 2015b, p. 21; Education Council of the Netherlands, 2014, pp. 25, 26; AWTI, 2015, pp. 23, 46).

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3 In 2012, the subthemes were described as follows (The Hague University of Applied Sciences, 2012, pp. 22-30):
   - For Entrepreneurship and Innovation (now: The Next Economy): 1) Emerging economies; 2) Complexity and risks; 3) Innovative entrepreneurship; and 4) Economy and public service.
   - For Quality of Life: People and Technology: 1) Vitality; 2) Cure; 3) Care; 4) Technology and health; 5) Innovation and transformation methods.
   - For Good Governance for a Safe World: 1) Right to good governance – 1a) International institutions for peace and security; 1b) Education as a tool for peace and security; 1c) Research into governance relationships in education 2) Safety of people and security of society – 2a) Cybersecurity and safety; 2b) Human safety and security.

4 The Next Economy: in ‘The Next Economy’ research platform, faculties and external partners work together on four aspects of the New Economy: Circular Economy, Digital Economy, Social Economy and Global Business.

5 In Dutch, The Hague University of Applied Sciences uses the term ‘kenniscentrum’, literally ‘knowledge centre’. See 4.1.2 for a description of a Centre of Expertise as part of the research organisation.
In the investment agenda for the ministry’s strategic agenda, the target figure for 1 FTE professor is 720 students, to be achieved from 2024 (Ministry of Education, Culture and Science, 2015, p. 79; The Higher Professional Education Council, 2010, p. 7). For The Hague University of Applied Sciences, such an expansion represents an opportunity to catch up, because it currently has fewer professors than most universities of applied sciences with a comparable size (The Hague University of Applied Sciences, 2015d, p. 3).

The intended expansion of professors requires a focused strategy. We determine target figures every year and the professors to be appointed are linked to the research focus, the profiling themes for the research platforms. More lecturers who carry out research are also required. The starting point here is that an average of 4 FTE lecturer-researchers (including doctoral candidates) are required for 1 FTE professor, so that sufficient volume is produced (see also 4.3).

### 3.5 Quality: continuing to improve and anchor the quality of research

Research at The Hague University of Applied Sciences must clearly be of sufficiently high quality to make a valid and reliable contribution to education and professional practice. That is why a lot is invested in the development phase of the research function. The quality of the research is also evaluated at various points and the quality assurance of the research is validated.6 Investing in the quality of research is good, and is necessary for both the research and the education (incl. the Scientific Council for Government Policy, 2013, p. 295; Education Council of the Netherlands, 2014, p. 19 and 2015, p. 24). The professors play an important part in guaranteeing quality, which is why the research at THUAS is connected to a research group. Satisfying the quality standards requires enough qualified researchers, together with a strong research culture, with shared starting points, and a lively debate, both internally and externally, about what constitutes good research.

In 2015, the Netherlands Association of Universities of Applied Sciences specified a new Research Quality Assurance Sector Protocol for the 2016-2022 period. This contains five quality standards for practice-oriented research at universities of applied sciences, which will be assessed per research unit. For The Hague University of Applied Sciences, those are the research platforms. The five quality standards are:

1. The research unit has a relevant, ambitious and challenging research profile and a research programme with objectives that are operationalised in a number of indicators.
2. The way in which the research unit is organised, its allocation of resources and its internal and external cooperative connections, networks and relationships facilitate the achievement of its research profile.
3. The research carried out by the research unit meets the standards applicable to research in this discipline.
4. The research unit achieves sufficient relevance in knowledge development within the area of research, professional practice and society, and education and professionalisation. The research has sufficient impact in these areas.
5. The research unit regularly and systematically evaluates its research processes and results. If required by the outcome of these evaluations, the research unit makes the necessary improvements.

The criteria for the quality of the research are underpinned by three key elements. The research is:

1. practically relevant;
2. methodically sound;
3. ethically responsible.

These three elements are further elaborated (The Netherlands Association of Universities of Applied Sciences, 2017) in 19 quality criteria for practice-orientated research (see appendix 3).

For proper safeguarding and monitoring of quality, The Hague University of Applied Sciences requires a transparent quality cycle for the research. We are reviewing this quality cycle and quality assurance in general in the short term, because of the new Sector Protocol and the recent organisational changes. Opinions of peers and stakeholders are an important part of this process. The Research Quality Assurance Sector Protocol specifies that research units must be inspected once every six years. We have discussed this process and the planning in detail with the research platforms and within the Strategic Research Council. This has resulted in a definitive visitation calendar (see appendix 7).

Given the ambitions of The Hague University of Applied Sciences in terms of contributing to education, making an impact on professional practice and society, focus, volume and quality, further strengthening of the research is required. The following chapter looks at the framework conditions for research at THUAS. It also covers strengthening the research culture, and the professional development of researchers at The Hague University of Applied Sciences.

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6 See, for example, Validation Committee for Quality Care Research 2010 and various external research visitations for the Research Quality Assurance Sector Protocol (Brancheprotocol Kwaliteitszorg Onderzoek, or BKQ).
4. FRAMEWORK CONDITIONS
This chapter discusses the organisation of the research; including governance, support, HRM, finances, knowledge management, communication, and research culture. These are the framework conditions for achieving the research ambitions of The Hague University of Applied Sciences.

4.1 Organising research

In 2015, the research groups from a separate organisational unit – the Centre for Research & Development – were transferred to the faculties. The organisation and management of the research in this new situation was set out in March 2015 in the memorandum ‘Governance, reorganisation plan and handling resources for research groups, research and focus points in the new faculties’ (The Hague University of Applied Sciences, 2015c). The governance and organisation in this document are being evaluated to see whether THUAS can achieve its strategic ambitions. The Research Governance working group has been working on this evaluation since the start of 2017 (see appendix 6). 4.1.1 discusses the current governance.

4.1.1 Governance

The memorandum from March 2015 has two starting points: the responsibility for achieving results for the research is placed with the relevant bodies, and the proposed research structure contains no organisational entities other than a faculty or service department. Professors report to the faculty dean. Professors have budgetary and a number of personal powers, linked to the research group, which include holding the Result & Development meetings with the researchers (The Hague University of Applied Sciences, 2015c, p. 6). The governance document does not yet record the Centre of Expertise as a form of organisation.7 The points for attention are the leadership and the strength of the research within the organisation. If the research ambitions are to be achieved, both the faculties and the service departments must adequately facilitate the research, in terms of both opportunities and resources.

The institutional plan World citizens in a learning society deals with the THUAS management model. The key is to achieve a good balance between a lack of restrictions and management based on results, and between clear-cut frameworks and inspiration. The model seeks to maintain equilibrium between softer management instruments – interaction and connection, inspiration and values – and harder instruments – monitoring and measuring, boundaries and rules (The Hague University of Applied Sciences, 2015a, pp. 18, 19). This equilibrium is also an important aspect of managing the research. This strategic research policy and the related documents contain a lot of frameworks, which will be monitored.

But THUAS can only achieve its ambitions if space is also provided for inspiration and connection.

The Strategic Research Council plays an important role in the current governance for research at The Hague University of Applied Sciences (The Hague University of Applied Sciences, 2015c: 7). This council maintains an overview at a central level of the implementation of the research strategy (see also 5). The council also carries out the annual evaluations of progress, and it advises the Executive Board if modifications to the strategy are necessary. The Research Governance working group focuses on the positioning, function and composition of the Strategic Research Council. One of the important questions here is whether external parties (from outside THUAS) are required to participate in the council.

4.1.2 Organisation

Under the current organisation, each research group is part of a specific faculty and almost all professors participate in one of the four multidisciplinary research platforms. Professors are only placed outside the research platforms in exceptional cases. This pertains to issues that are important for education and external relations, and which are not a good fit with the focus areas of the research platforms. All the research carried out by THUAS – in other words, all the research for which THUAS provides research resources – is linked to research groups. This means that those research groups function within a faculty – and usually within a research platform. From 2018, there will no longer be any research that is not linked to a research group. That is also important for the external evaluation of the research (see 3.5).

A minimum of 75% of the research by THUAS focuses on the themes of the research platforms. The faculties are responsible for this focus and scope of the research. The research platforms are consultative structures and put the substantive focal points in the profiling and performance agreements into practice. The formal duties of the platforms are to determine their own research programme, to monitor the progress of this programme and to send reports and notifications about this progress to the Strategic Research Council (The Hague University of Applied Sciences, 2015c, p. 9).

The research platforms consist of the deans of the faculties, Professors and external partners. One of the deans of the faculties is the Chair, and one of the professors is the leading professor. A platform coordinator coordinates the platform and the faculty office of the Chair provides the remaining support (The Hague University of Applied Sciences, 2015c: 9). Since 2015, the research platforms have worked on their research programme from these starting points. This resulted in the long-term plans by platform (see 3.3). The research platforms are at the heart of the external assessment of the research by The Hague University of Applied Sciences (see appendix 7).

Starting from the research platforms, one or more Centres of Expertise are formed around the subthemes. A Centre of Expertise is the place where research, education and the outside world come together. At the heart is a long-term multidisciplinary
research programme focused on innovation in professional practice and in education. A Centre of Expertise has the following features:

1. The Centre of Expertise deepens the profiling of THUAS.
2. There is a requirement for knowledge in professional practice, society or in education.
3. The Centre of Expertise is part of a relevant and intensively-used external network, possibly a consortium, both national and international.
4. The research is of proven quality and is authoritative.
5. The research is socially relevant.
6. The Centre of Expertise has volume and earning capacity, which is demonstrated by the willingness to invest of partners in the network.
7. The centre comprises at least 2 FTE professors.
8. The research benefits current and future students.

For the time being, the Centres of Expertise operate within the consultative structure of a research platform, in anticipation of the organisational model and the governance for the Centres of Expertise. A Centre of Expertise is formed around a relevant and intensively-profiled topic, where there is sufficient justification and demand from the outside world. It is also important that THUAS has sufficient in-house knowledge, which is demonstrated by the participation of at least 2 FTE professors from a range of research groups and faculties. So, the Good Governance for a Safe World research platform has a Centre of Expertise on the theme of cybersecurity. The decision on whether a Centre of Expertise is created is taken by the Executive Board, based on advice from the Strategic Research Council and on a business plan. The target is to have two Centres of Expertise for each platform by 2022 at the latest. It is likely that the Centres of Expertise will replace the research platforms in the long run. That decision will be taken after the Centres of Expertise have been formed.

The organisational structure of research at The Hague University of Applied Sciences therefore has three levels:

1. Research groups within faculties, comprising a professor and a knowledge circle. Most of the members of knowledge circles are lecturer-researchers, including doctoral candidates.
2. Four research platforms as a network and consultative structure for the profiling. The platforms handle the substantive direction and the cohesion of the research.
3. In the long term, Centres of Expertise for strongly profiling topics from the research platforms. The Centres of Expertise produce a more intensive and innovation-focused collaboration between research, education and professional practice.

The Research Governance working group is looking at the desired governance of Centres of Expertise.

4.1.3 Support
The responsibility to support research lies with both the service departments and the faculties at the faculty offices. The support from the faculty offices is operational and focused on the research groups, research platforms and – in the near future – the Centres of Expertise as well, which belong to the faculty. The support from the service departments is more policy-related and they focus on all the research carried out by THUAS.

The research team within the Unit Education & Research (Education, Knowledge & Communication service department) provides general policy support for the research, including quality assurance. The Subsidies Office is part of the Business Administration & Control department. The research team and the Subsidies Office support THUAS in achieving the ambitions relating to research. The focus here is always on innovation, increasing quality and strengthening the research culture.

Other units and service departments at THUAS also support the research; for example, the library, IT, communications, HRM and financing. The required expertise must also be available here. To increase the strength and the implementation capacity for the research, the various forms of service provision must be up to standard and properly coordinated.

Until 2015, support for the research was mainly provided by the Centre for Research & Development. The scope of that support was relatively limited. In the new situation, support comes from many different points, so it is important to monitor the scope properly, and to earmark the majority share of the total research budget for support.

4.2 HRM

The ambitions of The Hague University of Applied Sciences call for a dedicated Human Resources Management (HRM) policy, both for the establishment and evaluation of the (research) positions, as well as for the professionalisation of research. The HRM policy that serves as a basis for this is being updated in accordance with the 2020 Institutional Plan. The HRM Service Department is working on this together with all stakeholders. In June 2015, there was a memorandum about the nomination, recruitment, selection and appointment of professors (The Hague University of Applied Sciences, 2015d).

4.2.1. Positions and assessments
The current job classification system has six specific research positions. The description of these positions must be adapted to correspond with the new situation and the ambitions of The Hague University of Applied Sciences. For the time being, there is still a separate research line in the job classification system. That does not take away from the fact that there will often be a combination of research and educational duties on an individual level. In the research line, space will be opened up for the position of associate professor. The associate professor is always linked to a research group and a professor, and this position cannot be filled in isolation of an existing research group.

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8 The terms 'research group' and 'knowledge circle' are used synonymously in this document.
In the new profile and assessment framework for professors, in addition to regular forms of employment, there will also be specific forms of employment: the special professor and the fellow (The Hague University of Applied Sciences, 2016b). The assessment criteria for professors and other researchers must coincide effectively with the quality framework for the research and the research policy (see also 3.5). Professors have many duties. Not everyone has the same emphasis within this. The figureheads of the research must be given sufficient scope for variety in their position set-up and assessment. One professor may contribute more to professional practice, while another contributes more to the education and/or the professionalisation of lecturers. It is precisely this diversity of professors that makes research at the university of applied sciences and within the research platforms powerful.

The function of doctoral candidates requires attention in the job classification system. In addition to the current doctoral candidates, who obtain doctorates from their position as lecturers, the university of applied sciences wants to attract talented young researchers for a period of four years. They will perform doctoral research within the research themes of the university of applied sciences.

In anticipation of the national developments related to the job classification system (on the initiative of the Netherlands Association of Universities of Applied Sciences), the current job classification system for research at The Hague University of Applied Sciences shall remain in force.

### 4.2.2 Professionalisation

Professionalisation of research is necessary in various fields:

1. Professionalisation of professors, for example in the field of project management, (professional) education, raising funds and/or management skills.
2. Professionalisation of lecturers, including by professors (see 3.1) and for:
   - Carrying out their own research
   - Providing research-related education
   - Working on the investigative ability of students
   - Supervising students’ research
3. Professionalisation of the board and degree programme management, in order to steer research(s) and to improve the connection between education and research.
4. Professionalisation of support services.

For the further professionalisation of employees and management, the university of applied sciences has been working on the following matters since 2016/17:

1. An intensive series of masterclasses about the management of research for the board and degree programme management.
2. Effective and varied training programmes for lecturers.
3. Clear criteria and requirements for lecturer training, with attention to differences in levels.
4. Special attention to the training of doctoral candidates.
5. Running the range of training programmes for professors, lecturers, management and support staff centrally from The Hague Center for Teaching and Learning.


### 4.3 Finances

In 2017, 10 million euros are budgeted for research from government funding. In order to realise the ambitions for growth, we need to better utilise the available resources for research. A greater use of government funding and external resources is also necessary. In the investment agenda in their strategic agenda, the ministry takes a growth of the available resources for research at universities of applied sciences as its premise. This growth needs to take place by using 20% of the funds that are becoming available as a result of the introduction of the student loan (Ministry of Education, Culture and Science, 2015, p. 79). However, the definitive allocation of these funds will only be determined by a new cabinet. For this reason, The Hague University of Applied Sciences is, for the time being, standing by the 10 million euros.

As indicated in 3.4, The Hague University of Applied Sciences wants to increase the scope of its research in order to achieve a greater impact on education and practice. In order to achieve the ratio targeted by the administration of 1 FTE professor to 720 students by 2024 (see 3.4), the university of applied sciences needs to expand to 28 FTE professors (based on 20,000 funded students). If each research group needs to obtain an average knowledge circle of 4 FTEs, an expansion to (4 x 28 =) 112 FTE (lecturer) researchers, including doctoral candidates, is also necessary. Together with other costs for management, support and out-of-pocket costs, this results in approximately 15 million euros. If we stabilise the research funding from the government budget at 10 million, we therefore need to acquire 5 million (a third of the total) via external funding.

The external income in 2014 amounted to 22.6% of the total research budget of The Hague University of Applied Sciences. In previous years, this percentage was approximately 35% (The Hague University of Applied Sciences, 2015e, p. 5), but in 2015, the percentage further fell in relation to 2014, namely to 15%. For the coming years, we therefore need to focus in particular on external income for research, including by means of specific objectives for each research platform. THUAS wants to increase external funds to 30% in 2020 and 35% in 2022. It will then consider whether continued growth to 40% in 2025 is practicable. Whether or not the ratio of 4 FTE knowledge circle to 1 FTE professor can be achieved, depends on the intended external funding. By temporising the growth of the number of (new) research groups, we can guarantee controlled cost development where necessary. In addition to a clearer focus on results, professional support from a well-equipped and competent Subsidies Office is also necessary in order to generate more external income. A greater level of expertise from other supporting services is also important, as is a sense of urgency.

In addition, it is essential that the university of applied sciences reassesses the distribution, allocation and utilisation of internal and external research funding in light of the new research organisation. The internal allocation of funds to research has
become relatively complicated over the years: there are no less than six internal lines of funding. In order for the strategic ambitions to succeed, external incomes are important and a new allocation system for research funding is therefore highly desirable. The Research Governance working group picks up on this financial question (see Appendix 6).

4.4 Information management, communication and research culture

The research position requires strong support. The researchers need easy access to literature and resources, such as ICT programs. And the results of the research in the form of publications and other (professional) products must be distributed and disclosed in an effective and responsible manner. Both matters require policy attention and implementation capacity.

In 2014, the THUAS library and the Centre for Research & Development investigated which (desired) role the library plays in terms of supporting practice-oriented research (The Hague University of Applied Sciences, 2014). This not only involved looking into the traditional role of the library, but also its new roles, such as organising and supporting data management, research registration, publications and copyright. The following topics will be further developed in a separate publication policy: open access, copyrights, infrastructure for the circulation of publications and the development of a digital publication platform. The library can better facilitate research, and on a wider scale. This is on the agenda, but requires powerful continued development and effective connections between the library, the Education, Knowledge & Communication service department research team and the research platforms and researchers.

The communication about the research at the university of applied sciences also requires specific attention. This includes a clear and coherent message about the research, the digital findability of the research groups, research platforms and Centres of Expertise, and effective utilisation of a range of (social) media.

Finally, a flourishing and inspiring quality culture, with space for both good education and good research, is necessary for effective research. The university of applied sciences must do a lot more to present itself as a knowledge institution where development and exchange of knowledge is a daily, valued activity. The emphasis is currently on the university of applied sciences as an educational institution, where young people can obtain a Bachelor’s degree. The Lighthouse, our central and vibrant reception area, offers a great opportunity to give that a centralised structure. For example, for research lunches and a combined education and research day. But the research must also be present in a visible and inspiring manner in all faculties and programmes. That is possible via a wide range of traditional and modern means: from organising conferences, debates and readings to setting up labs both inside and outside the university of applied sciences. From sharing and reading publications or setting up a research award for the best graduation paper to holding Skype interviews with important researchers in the classroom. Every programme and every research platform must work on an active research culture. As a result, lecturers, students and external parties will experience research as a useful, natural and appealing part of the university of applied sciences.
5. REALISATION
This memorandum contains research ambitions for education, translation into professional practice and society, focus, mass and quality. These ambitions can be summarised in a twelve-point programme:

The twelve ambitions and the quantitative objectives (see 4.3) form a cohesive whole, which The Hague University of Applied Sciences will apply in an integrated and focused manner in the coming years. Each of the twelve programme components requires attention in order to achieve the objectives of effective research for the innovation of education and professional practice. Many actors are involved in this. First and foremost, these are the researchers: professors and lecturer-researchers. Faculty directors, degree programme managers and the Board on the one hand and the various service departments on the other hand must enable the researchers to work on the ambitions. The coordination of all programme points and actors lies with the Executive Board together with the Strategic Research Council as the advisory body, but all individual actors are responsible for the implementation.

The professors have a special role and responsibility. They ensure that research in their own research group is effective, which contributes to all of these ambitions. However, they also need to ensure that via the research platforms and Centres of Expertise, there is a great deal more cohesion and collaboration between the various research groups.

There are important conditions for the strategic research policy: the policy must be translated into specific objectives, the ambitions must be known and the university of applied sciences and all involved parties must commit to it and act in accordance with it. The translation of the policy into objectives takes place in separate documents on sub-topics. The objectives and the implementation of the research strategy are monitored on an annual basis. This monitoring is carried out by the Education, Knowledge & Communication service department research team. The Strategic Research Council evaluates the objectives, adjusts them periodically if necessary and advises the Executive Board about them.
The university of applied sciences and all involved parties must be well acquainted with the strategic research policy and commit to it. The decisions often imply a change. For example, researchers are requested to work together more on specific topics, to bring in more external funding and to work more internationally. The support of research activities must be more effective, more focused and requires greater coordination. The appointment of professors and doctoral candidates will be linked a lot more closely to the focus of the research. There are no resources for research outside of the research groups. Involvement in and openness towards these changes requires a careful research strategy, which corresponds effectively with the university of applied sciences’ management philosophy, with a balance between guidance and space. The frameworks of this, which the university of applied sciences will use as a basis, are presented in Appendix 4.

Faculty deans, programme managers and professors are the key figures in terms of implementing the changes. They focus on the frameworks, organise space and inspiration in order to achieve the objectives and ensure sufficient implementation capacity. Some changes need to be and are able to be quick, whereas others require more time. The launch of the change strategy is a broad series of meetings and round tables in the university of applied sciences, in which the research strategy will be discussed with various internal stakeholders. A summary of the research strategy will also be available for the broad university of applied sciences community and for external stakeholders of the university of applied sciences.

Finally, the research strategy of The Hague University of Applied Sciences is ambitious. The strategy was drawn up in 2016 and ties in with the relevant national and university-wide agendas at that time. It is advisable to regularly evaluate the strategy for internal consistency and feasibility and also in terms of alignment with external circumstances. The evaluation of the research team of the Education, Knowledge & Communication service department essentially takes place annually. In addition, we are also planning an external evaluation for the Research Quality Assurance Sector Profile. As a result, the research carried out at The Hague University of Applied Sciences is able to continue improving the education, the professional practice and the social debate.
Appendix 1. Literature used


The Hague University of Applied Sciences (2015c). Governance, reorganisatieplan en omgang middelen lectoraten, onderzoek en zwaartepunten in de nieuwe faculteiten. [Governance, reorganisation plan and handling resources for research groups, research and focus points in the new faculties.] Development and enhancement of the notes ‘Integratie lectoraten, onderzoek en zwaartepunten in de nieuwe faculteiten’ [Integration of research groups, research and focus points in the new faculties]. The Hague: The Hague University of Applied Sciences


The Hague University of Applied Sciences (2015e). Basisgegevens Onderzoek HHs [Basic details of research at THUAS], Ineke van Halsema commissioned by The Hague University of Applied Sciences The Hague: The Hague University of Applied Sciences


The Hague University of Applied Sciences (2017a). Kaders voor de toewijzing van lectoraten. [Frameworks for the assignment of research groups.] The Hague: The Hague University of Applied Sciences


Losse, M. (2016). De relevantie van onderzoekend vermogen. [The relevance of investigative ability. Why ‘professional products’ are the key.]


The Netherlands Association of Universities of Applied Sciences (2016). Onderzoek met impact strategische onderzoeksagenda

Appendix 2. Research of universities of applied sciences in policy documents for higher education

In July 2015, the Minister of Education, Culture and Science published the new strategic agenda for higher education and research: De waarde(n) van weten [The value(s) of knowledge]. This agenda bridges the divide to higher education in the 21st century and provides a quality boost for students and lecturers. The agenda focuses on the following three topics:

1. First-rate education
2. Accessibility, talent development and diversity
3. Connection with the society

The ministry highlights the importance of research for a rich learning environment and places the emphasis for universities of applied sciences on expanding the volume of research (Ministry of Education, Culture and Science, 2015, pp. 28, 29). The investment agenda translates this into the specific ambition to increase the number of professors nationwide by 580 FTE and, from 2024, to achieve a ratio of 1 professor to 720 students (Ministry of Education, Culture and Science, 2015, p. 79).

A range of organisations and advisory bodies have provided input for the ministry’s strategic agenda. In May 2015, The Netherlands Association of Universities of Applied Sciences delivered the agenda HBO 2025 Wendbaar en weerbaar [HBO 2025 Versatile and resilient]. In it, they formulated three key values and five tasks for the universities of applied sciences. Value three and task three specifically relate to research. Practice-oriented research is part of the public task of universities of applied sciences, which needs to benefit students (the education) as well as the socio-economical development of the professional field and/or the region (The Netherlands Association of Universities of Applied Sciences, 2015b, p. 11). In 2025, the research carried out by universities of applied sciences shall assume an unwavering position in the knowledge infrastructure. The Education Council of The Netherlands (2014) also provided input for the strategic agenda. The Council dealt with the request for advice, ‘How can higher professional education better respond to changing professional practice?’ The essence of the recommendation is to improve the connection between education, research and professional practice. The recommendations from the Education Council of The Netherlands include:

1. Train staff to become research professionals, by means of greater capacity of professors, more lecturers with Master’s and doctorates, systematic attention for research in the curriculum and an effective, accessible knowledge infrastructure.
2. Increase the contribution from the professional field, via regional strategic networks, expanding the Centres of Expertise and reducing barriers to public and private cooperation.

The input from the Advisory Board for Science, Technology and Innovation (2015a) deals with the knowledge relationship between SMEs and universities of applied sciences. This knowledge relationship is important for regional growth and employment opportunities. The research carried out by universities of applied sciences corresponds effectively with the requirements of SMEs: it is short-term, multidisciplinary and practical. By means of knowledge circulation with the business community, the curriculum remains current and it continues to tie in with the employment market in the best possible way. The Advisory Board wishes to improve the relationship between SMEs and universities of applied sciences in three areas:

1. Demand articulation from SMEs: translate practical problems into effective research questions.
2. Internal organisation of the universities of applied sciences: including time and flexibility.
3. Collaboration between public knowledge institutions: still requires attention.

This advisory report also provided useful input: Naar een lerende economie (Towards a learning economy) by the Scientific Council for Government Policy (2013). In the report, the Council outlines its vision on Dutch earning capacity as being the most important preparation for the future. Responsiveness is the key term here: the ability to respond to new developments quickly and adequately. This involves resilience, adaptation and a proactive approach. The Netherlands must withstand the various tasks by stimulating knowledge circulation, in particular by a better use of existing knowledge. To date, universities of applied sciences...
are overly regarded as mere schools, but they will also need to transform themselves into knowledge institutions and find a new balance between transferring knowledge, creating economic activities and contributing towards solving problems.” (2013: 255) Amongst other things, this requires the development of research and educational institutions into regional Centres of Expertise that are structurally connected with the environment. In order to increase the earning capacity, it is better to invest in knowledge circulation than in Research & Development alone (2013: 369). This is possible by means of sustainable networks with two-way traffic between knowledge institutions and their environments (instead of the one-way traffic of valorisation). These views of the Scientific Council for Government Policy can be found in The Hague University of Applied Sciences’ institutional plan from 2015. The emphasis in this is on the university of applied sciences as a networking university of applied sciences.

The Advisory Board for Science, Technology and Innovation also provided input in the form of the advisory report De verwevenheid van onderzoek en hoger onderwijs (The interwoven nature of research and higher education) (2015b). This report deals with the request for advice ‘How can the policy encourage the interwoven nature of higher education and research to contribute (more) strongly to the quality of education, the quality of research and the future prospects of students?’ Universities of applied sciences represent different challenges compared to universities when it comes to combining research and education: ‘The most important difficulties faced by universities of applied sciences are the number of professors, the research volume and the number and quality of lecturer-researchers. The research volume is too limited to reach all students and the research remit is often secondary to the educational remit.’ (2015b: 5) According to the analysis, the interconnection between education and research is under pressure and needs to improve. The advisory board’s recommendations include: analyse where the link between research and education is productive, reinforce this where necessary and continue developing the research function of universities of applied sciences.

In 2025, Dutch science will be a breeding ground for talent. The science vision positions the practice-oriented research of universities of applied sciences as an integral part of the knowledge system: ‘In order to further reinforce the knowledge function of universities of applied sciences, it is necessary to further work on capacity building in practice-oriented research, to further professionalise the organisation in this field at universities of applied sciences, to improve the collaboration between universities and universities of applied sciences and to increase the ability of further professional education to acquire subsidies in Europe. Furthermore, our policy for open access will also make higher professional education publications more widely available.’ (Ministry of Education, Culture and Science, 2014, p. 52). In spring 2015, with a broad invitation, 11,700 questions were collected as the basis for a science agenda. Broadly based juries of top researchers grouped these questions into 140 overarching questions. On the basis of this, the science agenda determined sixteen routes as an instrument by which to seek new connections. These are not exhaustive or non-binding. Examples of routes include: big data, personalised medicine and resilient and valued societies. The science agenda was published in November 2015 at www.wetenschapsagenda.nl.
## Appendix 3. Quality criteria for practice-oriented research

<table>
<thead>
<tr>
<th></th>
<th>Practically relevant</th>
<th>Methodically sound</th>
<th>Ethically responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Network in practice, research and education</td>
<td>1. Practice and education are involved with the research</td>
<td>8. The research community is involved with the research</td>
<td></td>
</tr>
<tr>
<td>B. People, resources and organisation</td>
<td>9. People, resources and organisation are adequate</td>
<td>15. Researchers are honest, independent and impartial</td>
<td></td>
</tr>
<tr>
<td>C. Subject matter</td>
<td>2. The research subject matter is practically relevant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Research questions</td>
<td>3. The research questions are practically relevant</td>
<td>10. The research questions are formally qualitative (clearly defined, precise, functional)</td>
<td></td>
</tr>
<tr>
<td>E. Research design</td>
<td>12. The research design meets the criteria applicable to the research under the chosen research tradition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. Implementation</td>
<td>4. The research results are practically useful</td>
<td>13. The results are adequate, unambiguous and plausible</td>
<td></td>
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<tr>
<td>G. Results</td>
<td>5. The results are transferrable to contexts other than those researched</td>
<td>18. The results are accessible, preferably via Open Access</td>
<td></td>
</tr>
<tr>
<td>H. Effects on professional practice and society, education and professional and knowledge development</td>
<td>6. The research has an effect on professional practice and society</td>
<td>14. The research has an effect on knowledge development within the field of research</td>
<td></td>
</tr>
<tr>
<td>I. Justification</td>
<td>19. Over de kwaliteit van het onderzoek wordt verantwoording afgelegd</td>
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### Note
Appendix 4. Frameworks related to the ‘Onderzoek versterkt’ (Research Strengthens) memorandum

- As of 1 January 2018, all the research carried out under the responsibility of the university of applied sciences is associated with a research group. This relates to research that is funded by the university of applied sciences or from the second or third cash flow.
- The Executive Board is setting up three working groups: for the interrelation between education and research (both in terms of content as well as organisation, with special attention to the deployment of lecturers), for research governance and for research quality. These working groups make specific recommendations and deliver specific products (see Appendix 6).
- By 2018 at the latest, each faculty will have a professor with the education and research connection in its portfolio.
- A standard is being introduced in order to support research, from a range of different service departments and faculty offices. This will be monitored on an annual basis and adjusted, if necessary.
- At the level of the university of applied sciences, a minimum of 75% of the research focuses on the themes of the research platforms.
- A minimum of 75% of the new doctoral research posts are related to the strategic themes of the university of applied sciences, preferably to vacancies from the research platforms or Centres of Expertise.
- In 2025, there will be 1 FTE professor per 720 funded students at The Hague University of Applied Sciences.
- For each FTE professor, this will mean hiring an average of four FTE lecturers and/or lecturer-researchers, including doctoral candidates, in 2025.
- Lecturers, members of a knowledge circle, carry out research for an average of 0.4 FTE (for a minimum of 0.8 FTE position). Other variations are also possible, such as fully exempting a lecturer from teaching for a educational block so that they can carry out research.
- By 2022, at least a third of research funding will be acquired externally. This will be an objective for every platform and/or knowledge institution within the university of applied sciences.
- By 2022, there will be a minimum of two strategic partners per research platform/knowledge centre.
- In 2022, one or more Centres of Expertise will be formed per research platform.
- A Centre of Expertise comprises at least 2 FTE professors.
- The Executive Board makes a decision regarding the formation of a Centre of Expertise on the recommendation of the Strategic Research Council.
- In 2018, each research platform will have at least one international project.
- Publications are open access, unless this is not permitted by the medium of publication, or unless the research result requires a patent or another form of protection.

- The objectives and the implementation of the research strategy are monitored on an annual basis. This monitoring is carried out by the Education, Knowledge & Communication service department research team. The Strategic Research Council evaluates the objectives, adjusts them periodically if necessary and advises the Executive Board about them.
Appendix 5. Assessment framework for professors

The faculty deans assess the professors in a transparent assessment process. For this process, the following results areas serve as a starting point:

1. Education:
   a. The professor contributes (via their research group) to the curriculum and the curriculum development.
   b. The professor contributes to the professional development of lecturers.
   c. The professor involves students in the research carried out by the research group.

2. Society and professional practice:
   a. The research results from the professor contribute demonstrably to solving problems in society and/or professional practice.
   b. The professor works together with the university of applied sciences’ strategic partners.
   c. The professor acquires funding from secondary and tertiary revenue flows.

3. Research:
   a. A large part of the research carried out by the research group takes place within the strategic themes of The Hague University of Applied Sciences.
   b. The output of the research complies with the standards in the subject area.
   c. The professor works together with other knowledge institutions.
   d. On average, by 2022 at the latest, the professor will acquire 30% of the group’s research budget from secondary and tertiary revenue flows (increasing to 40% in 2025), whereby participation in international projects is also important.

   e. Each professor publishes a peer reviewed article at least once every two years.
   f. The professor has a demonstrable network in the national knowledge infrastructure, and preferably also in the international knowledge infrastructure. That is evident, for example, from the collaboration in projects or joint publications.

For these result areas, clear standards need to be determined from the strategic research policy for each component, which will serve as a starting point for the assessment of professors:

1. Education:
   b. The research group contributes to the curriculum and the curriculum development of degree programmes, both via the educational content as well as the line of research.
   c. All parties involved in the knowledge circle, including the professor, teach students by means of contact time in all academic years.
   d. The research group contributes to the graduation assignments of fourth-year students.
   e. The research group contributes to the research ambitions of programmes, by partially focusing the research of the research group on these.
   f. The professional development of lecturers takes place by means of supervision of the research of lecturers and/or via targeted courses and training sessions.

2. Society and professional practice:
   c. This result area is extremely varied: from contributions to social debate to specific products for parties in professional practice.
   d. The professor works together with at least one strategic partner of the university of applied sciences (there will be at least two strategic partners per research platform).

These are the minimal standards with which each professor and their research group must comply. Professors can emphasise some result areas more than others, for example due to the requirements of the faculty and the field of work and owing to the head of research group’s personal strengths. A field of research can also be added for the organisation and management tasks of the professor.
Appendix 6. Tasks for working groups

Research Governance working group

Task formulation
The working group evaluates the effectiveness of the current research governance. This comprises decision-making powers, responsibility and supervision of personal and financial matters and of strategic decisions, quality and performance. The working group makes recommendations for adjustment in structure and processes. In view of the ambitions of The Hague University of Applied Sciences, these are the main questions:
To what extent does the governance chosen support the ambitions in Onderzoek versterkt (Research Strengthens)?
To what extent is the governance future-proof, in view of the establishment of Centres of Expertise from the platforms?
What are the recommendations for the governance of The Hague University of Applied Sciences, taking the responses to the above questions into account?

Part of the task is focusing on the remit, composition and positioning of the Strategic Research Council during the evaluation. The starting point is the memorandum ‘Governance, reorganisation plan and handling resources for research groups, research and focus points in the new faculties’ (The Hague University of Applied Sciences, 2015c).

Structure
Commissioning party: The Executive Board
Contractor: Board Affairs service department

Project organisation:
- Direction of the implementation of this task lies with a board adviser.
- Working group for: collecting input (internal and external) for evaluating and providing advice.
- Process whereby the relevant stakeholders are involved.
- Steering committee for validation/assessment: dean of faculty with research platform, dean of faculty without research platform, Research & Education unit manager, professor, lecturer/also member of HR (personal title).

Responsibilities:
- Working group: carries out an evaluation and formulates the recommendation on the basis of the input.
- Steering committee: provides feedback/advice on the progress of the project team and approves the recommendation to be provided.
- Executive Board: makes a decision about the recommendation.

Planning
- First half of September: set up project organisation and draw up project plan
- September-November: collect input
- November-December: develop draft recommendation

Research-Education working group

Task formulation
The working group focuses on improving the relationship between education and research at The Hague University of Applied Sciences. The working group collects examples, tips and guides about this relationship. For example by organising study days with involved parties at The Hague University of Applied Sciences: lecturers, researchers, professors and potentially students. The working group discusses and processes the findings in a form to be further determined. This form must be practical for everyone with responsibilities in education and research. The meetings are important in the process in order to get the involved parties at the university of applied sciences on board with the new insights.

Background
The Executive Board established the working group in order to improve the relationship between education and research. Starting points are Onderzoek versterkt (Research Strengthens) (2017) and Onderwijsvisie en -kader (Educational vision and framework) (2017). The activities are seen as the first phase of the realisation of the policy objectives from both strategic memorandums. There is intensive coordination with the implementation process of the Educational vision.

Structure
Commissioning party: The Executive Board
Contractor: Education, Knowledge & Communication and Human Resource Management service departments

Project organisation
- Direction of the implementation comes from an employee of one of the two contractors.
- Participants in the direction/Working group: programme managers and professors, Education, Knowledge & Communication and Human Resource Management employees.
- Executive Board: establishes task and results.

Planning
- September 2017: establishment of task, setting up steering committee and working group
- Autumn 2017: preparatory activities of working group; study days, direction group meeting
- Winter 2018: study days; formulation of results; steering committee meeting
- March 2018: results to the Executive Board and the General Council
Quality Assurance working group

Task formulation
The working group prepares the research platforms based on the research inspections in 2019/2020 and accompanies the inspection processes. The working group is also responsible for a THUAS-wide quality assurance system on the basis of the Research Quality Assurance Sector Profile 2016-2022. This system will also include indicators for both the research units to be inspected as well as the research groups. The working group follows a twin-track strategy: Setting and following inspection schedules, fulfilling the frameworks of the Research Quality Assurance Sector Profile and formally preparing the inspection.
Bottom-up generation of energy and a discussion about the quality of research.

Background
At the end of 2016, the Strategic Research Council established the working group as a result of the Research Quality Assurance Sector Profile 2016-2022. The quality assurance system and the research inspections must be adjusted to correspond with this. The Research Quality Assurance Sector Profile 2016-2022 (2016), the long-term plans of the research platforms (2016 and 2017) and the research indicators of The Hague University of Applied Sciences form the basis. We share the knowledge about the preparation and supervision of inspections and about the quality assurance framework with other universities of applied sciences.

Structure
Commissioning party: The Executive Board
Contractor: Education, Knowledge & Communication service department

Project organisation
● Direction for the implementation lies with the research team from the Education, Knowledge & Communication service department.
● Working group participants: research team, the four coordinators of the research platforms and two professors.
● Steering committee: Strategic Research Council.

Responsibilities
● Working group: carries out the task.
● Steering committee: provides feedback/advice about the progress of the working group and advises the Executive Board about the results.
● Executive Board: establishes task and results.

Planning
From its establishment in 2016, the working group mainly focused on the preparation of the inspections in the first half of 2017. In February, the working group provided an inspection calendar, and this was adopted by the Executive Board. The schedules for the preparation and supervision of inspections are included in Appendix 7.

The planning of the THUAS-wide quality assurance system is as follows:
● Autumn 2017/winter/spring 2018: working group preparation (twice to steering committee)
● June 2018: offer to Executive Board
Appendix 7: Planning research inspections BKO 2016-2022
(The Netherlands Association of Universities of Applied Sciences, 2015c)

Adopted by the Executive Board on 7 March 2017

Good Governance for a Safe World platform
- Self-evaluation start: June 2018
- Inspection: May 2019
- Delivery to CEKO\(^\text{11}\): December 2019

Connected Learning platform
- Self-evaluation start: June 2018
- Inspection: May 2019
- Delivery to CEKO: December 2019

Quality of Life: People and Technology platform
- Self-evaluation start: January 2019
- Inspection: November 2019
- Delivery to CEKO: June 2020

The Next Economy platform
- Self-evaluation start: June 2019
- Inspection: May 2020
- Delivery to CEKO: December 2020

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\(^{11}\) Over a period of six years, the CEKO (Commissie Evaluatie Kwaliteit Onderzoek [Quality Research Evaluation Committee]) supervises the implementation of the Research Quality Assurance Sector Profile (BKO); in its annual industry report, the committee evaluates the effects of the BKO, and makes recommendations for improvement. The inspection reports and the administrative response to inspection reports form the basis on which the Quality Research Evaluation Committee bases its findings (The Netherlands Association of Universities of Applied Sciences 2015c).
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