RESEARCH REVIEW SPATIAL SCIENCES 2013-2019



De Onderzoekerij Vondellaan 58 2332 AH Leiden

Phone: +31 6 24812176 Email: <u>info@onderzoekerij.nl</u> Internet: www.onderzoekerij.nl

Contents

Preface	5
1. Introduction	6
1.1 Terms of reference for the assessment	6
1.2 The review committee	6
1.3 Procedures followed by the committee	6
2. General observations and recommendations	7
2.1 Spatial sciences in the Netherlands – institutional context	7
2.2 Research quality	8
2.3 Societal relevance	8
2.4 Viability	8
2.5 Other aspects	8
2.6 Systemic challenges	9
2.7 General recommendations	9
3. Urban and Regional Studies Institute (URSI), University of Groningen (UG)	11
3.1 Quantitative assessment	
3.2 Organisation, strategy and targets	11
3.3 Research quality	
3.4 Societal relevance	13
3.5 Viability	14
3.6 PhD programme	16
3.7 Research integrity	17
3.8 Diversity	17
3.9 Recommendations	18
4. The Urban Futures Institute (UFI), Utrecht University (UU)	20
4.1 Quantitative assessment	
4.2 Organisation, strategy and targets	20
4.3 Research quality	
4.4 Societal relevance	
4.5 Viability	
4.6 PhD programme	
4.7 Research integrity	24

4.8 Diversity	24
4.9 Recommendations	25
5. The Department of Geography, Planning and International University of Amsterdam (UvA)	-
5.1 Quantitative assessment	27
5.2 Organisation, strategy and targets	27
5.3 Research quality	28
5.4 Societal relevance	29
5.5 Viability	29
5.6 PhD programme	30
5.7 Research integrity	31
5.8 Diversity	31
5.9 Recommendations	31
Appendix A - Programme of the site visit	33
Appendix B.1 - Quantitative data RUG	35
Appendix B.2 – Quantitative data UU	36
Appendix B.3 – Quantitative data UvA	37
Appendix C – Meaning of the scores	38

Preface

This report contains the assessment by the external review committee of research in spatial science at the universities of Groningen, Utrecht and Amsterdam. On behalf of the committee, I thank the leadership and staff of the three milieus for all work put into the three well-reflected and well-written self-evaluations and for the welcoming atmosphere and openness we met in the interviews that took place during an intense week in early October 2020.

Due to the pandemic, the "site visits" and interviews this time had to take place in virtual space rather than in real life. As spatial scientists/geographers we are of course intensely aware of the importance of meeting face-to-face when it comes sharing and exchanging complex information and knowledge. We really regret having missed that opportunity, and must assume that it has had effects of the depth of our understanding of the milieus we have evaluated. Having said that, it is interesting to note that digital technology is now at a level where it is indeed possible to carry out an exercise like this at a distance. I would also like here to thank the committee members for their commitment to the evaluation task and more generally to the development of the field of spatial sciences.

The committee also extends a warm thanks to Annemarie Venemans for highly professional support throughout the process.

Anders Malmberg, Chair of the Evaluation Committee

1. Introduction

1.1 Terms of reference for the assessment

The quality assessment of research in Spatial Sciences is carried out in the context of the Standard Evaluation Protocol 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 committee was asked to assess the scientific quality and the relevance and utility to society of the research conducted within spatial sciences by three universities in the reference period 2013-2019, as well as its strategic targets and the extent to which it is equipped to achieve them.

Accordingly, three main criteria are considered in the assessment: research quality, relevance to society, and viability. In addition, the assessment considers three further aspects: the PhD training programme, research integrity and diversity.

This report describes findings, conclusions and recommendations of the external assessment.

1.2 The review committee

The Board of the three participating universities appointed the following members of the committee for the research review:

- Prof. Holly Barcus;
- Prof. Anthony Bebbington;
- Prof. Anders Malmberg (chair);
- Hanna Murray-Carlsson;
- Prof. Andre Sorensen;
- Prof. Mari Vaattovaara.

The Board of the participating universities appointed dr. Annemarie Venemans of De Onderzoekerij as the committee secretary. All members of the 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 site visit, the committee reviewed detailed documentation comprising: The self-assessment report of the institutes including appendices, key publications and the previous assessment report.

The committee proceeded according to the SEP. The assessment was based on the documentation provided by the institutes and the interviews with the management, a selection of researchers of the institute, and PhD students. The online interviews took place on October 6-8 2020 (see Appendix A).

The committee discussed its assessment at its final session during the site visit on October 9. The members of the committee commented by email on the draft report. The draft version was then presented to the Institutes for factual corrections and comments. Subsequently, the text was finalised and presented to the Board of the universities.

2. General observations and recommendations

This chapter discusses the structure and performance of Dutch Spatial Sciences on a national level, and compared to international trends. In addition, the committee uses the chapter to describe some general observations and recommendations.

2.1 Spatial sciences in the Netherlands – institutional context

The Netherlands has been, and indeed is, seen as a global stronghold in the field of spatial sciences and planning. There has been a strong tradition of public investment in both education and research in this field, largely in response to the specific planning challenges that the Netherlands faces as a result of topography and population density.

This evaluation comprises three large and well-established milieus in the field in the Netherlands, at the Universities of Groningen, Utrecht and Amsterdam, respectively. While there are some structural similarities between the three milieus there are also some striking differences in terms of institutional context, disciplinary orientation, research funding and governance.

Thus, at Groningen University, spatial sciences is organised as a separate faculty, within which teaching is organised in four departments. Research is organised within the 'Urban and Regional Studies Institute', under a relatively broad research programme (TWIST) with 17 research topic areas. At Utrecht University, research is organised within one unified programme, the 'Urban Futures Programme', within the Department of Human Geography and Spatial Planning, one of four departments of the Faculty of Geosciences. At the University of Amsterdam, the department of Human Geography, Planning and International Development Studies, with four separate research programme groups, is part of a social and behavioural sciences faculty.

The institutional context has some implications for disciplinary orientation. If (human) geography and (spatial) planning is taken to be the disciplinary core of the spatial sciences field, the degree of proximity to regional science, economics or the broader field of social sciences (sociology, anthropology) vary, presumably partly due to this structure. Generally speaking, spatial science in the Netherlands is, in comparison to many other countries, characterised by a strong empirical (and often quantitative) orientation.

There are also noteworthy differences in the structure of research funding where the relative shares of direct funding, research grants and contract research vary between the milieus in focus and thereby, evidently, within the spatial sciences field in the Netherlands generally. These differences have implications for how research is organised. A large share of second- or third-stream funding can be seen as an indicator of high research quality but also affects the long-term viability of a milieu. The amount of direct research funding seems mainly to reflect the volume of teaching in the respective milieus.

The structural differences are not pointed out here with the aim to correlate them to performance or quality. On the contrary, the evaluation generally confirms the high international standing of Dutch research in the spatial sciences, and therefore that strong research performance and very high quality can be achieved in a variety of settings.

2.2 Research quality

As stated already, the committee's preconception was that the Netherlands is a stronghold of spatial science. This is verified in the self-assessments, testified in interviews, and supported by data on publications, citations, and grant acquisition. Based on the three cases in point, there is evident ambition to be international leaders in the field of spatial science, there are ample examples of truly globally leading individuals and groups, and research quality is generally very good to excellent.

2.3 Societal relevance

Within spatial sciences, the application of research methods and results to real world planning problems is generally very much integrated. The growth of spatial sciences as an academic field during the 20th century to a large extent went hand in hand with the growth of planning in society, not least in welfare state type of countries like the Netherlands or in Scandinavia.

Against that background it is not surprising that this evaluation shows high ambitions regarding societal impact among the spatial sciences milieus under review here. While there is in general a strong focus on research excellence, there are many noteworthy examples of initiatives to integrate the research quality and relevance. Collaboration with and outreach to actors and audiences outside academia is perhaps more often seen as putting academic knowledge to use in society. There are fewer examples of systemic work to let dialogue with external stakeholders inform research agendas and teaching (even though they exist too).

2.4 Viability

Dutch universities generally have a very good international standing and spatial sciences generally seems to have a solid position within the universities, judging from the cases reviewed here. This means that spatial sciences generally seem well equipped for the future; the ability to attract talent and resources is strong. The committee has, however, identified challenges related to the stability of financial models, academic career system, organisational resilience, and adaptability to develop research agendas as society transforms.

2.5 Other aspects

PhD education is judged to be a strong area in Dutch spatial science. Judged by the PhD programmes in the milieus in focus here, there is clearly a strong ability to attract high quality PhD students, and programmes and supervision are generally well organised. The co-existence of different funding models/PhD contracts may, however, be a source of some tension.

When it comes to the different aspects of research integrity, formal systems seem to be coming into existence while work remains to integrate them fully throughout research operations and culture.

The committee has the impression that, across the board, there is strong awareness of and ample examples of proactive action regarding diversity in terms of gender and to a degree age. When it comes to other aspects of diversity, notably related to ethnicity, race, and sexualities, there seems to be much more limited awareness and little action taken. This is noteworthy, given that these are issues that are gaining weight in academia in many countries.

2.6 Systemic challenges

While Dutch universities and the Dutch model for research funding generally provide a good setting for the field of spatial science to develop, the committee has identified some systemic traits that do seem to create barriers for the future international standing of the field.

The intricate relation between research and teaching in Dutch universities seems to create two challenges. First the committee notes that generally these two core university activities are fairly detached organisationally. All the cases in focus here have different organisations for teaching (typically departments) and research (typically institutes and programmes). At the same time the allocation of direct research funding seems strongly attached, albeit in an intricate way not so easily understood from the outside, to the volume of teaching.

Secondly, the Dutch version of a tenure track system seems to differ from most other national systems, in that there is not everywhere an option to be considered for promotion to the highest step on the academic ladder unless a "slot" comes open, at which point internal candidates must compete in an open search. While this seems to be a result of both funding models and tradition, each with its own inherent logics, the model strikes the committee to be less conducive to the goal of creating and sustaining attractive and internationally competitive academic milieus. The committee realises that neither the problem, nor its solution, is confined to the field of spatial science, but still wants to point it out. If academic milieus, as clearly seems to be the case in spatial science in the Netherlands, can attract international top level young staff at the assistant professor level, and these, based on strong performance, can be promoted to associate professors, it does seem counterproductive to maintain a system which does not allow them to be considered for internal promotion to full professorship, no matter how well they perform.

2.7 General recommendations

- Without being able to compare with other fields or universities, the committee notes the Netherlands is home to (at least) three really strong spatial science research units that punch far above their weight by producing research of both very high quality and societal relevance. Spatial sciences departments are furthermore well-positioned to contribute to several urgent global challenges, including research on the impacts of climate change and policy approaches to mitigate it, the United Nations' sustainable development goals, and global urbanization transitions, among others. They clearly deserve continued support. The committee recommends that the three universities together with the wider spatial planning community in the Netherlands acknowledge the strength of spatial sciences and maximise the utilization of this resource both academically and in society;
- Spatial sciences in the Netherlands, as testified by the three cases in point here, have proven
 able to attract talented research staff at the highest international level. It strikes the
 committee as counterproductive that not all universities seem to be able to offer possibilities
 for internal promotion to the level of full professor. The committee recommends a broadening
 of the ability to recruit to the highest academic level by allowing promotion to full professor
 from within the Faculty, as well as through international competitive searches;
- While gender and age diversity are generally well accounted for in the self-assessments and
 interviews, the committee was surprised that other measures of diversity were not actively
 considered or discussed. Other dimensions of diversity include more specific attention to
 region-of-origin diversity, racial, ethnic, cultural, and gender diversity. The committee
 recommends greater attention to a broader definition of diversity and continued attention to
 gender diversity amongst staff;

A feature of academia in the Netherlands in general, and in the three milieus in focus here in
particular, is that there is a high-performance culture, with pressure on staff to carry relatively
heavy teaching loads together with strong demands for research achievements (grant
acquisition, publishing) and outreach activities. This builds up to heavy workloads that can in
the longer term create unsustainable work conditions. The committee recommends increased
awareness of the need to keep staff workload and stress levels manageable.

3. Urban and Regional Studies Institute (URSI), University of Groningen (UG)

3.1 Quantitative assessment

The committee assessed the quality, societal relevance and viability of the Urban and Regional Studies Institute (URSI) of the Faculty of Spatial Sciences, University of Groningen (UG) both quantitatively and qualitatively. Its PhD programme, research integrity and diversity are assessed qualitatively. For the quantitative assessment a four-point scale is used, according to the standard evaluation protocol 2015-2021. The explanation of the criteria underlying the scores can be found in appendix C. The qualitative assessment of the Institute can be found in the next sections.

Given the standards laid down in the SEP, the committee has awarded the following scores to the Institute:

Research quality: 2

Relevance to society: 1

Viability: 2

3.2 Organisation, strategy and targets

The Urban and Regional Studies Institute (URSI) is the research arm of the Faculty of Spatial Sciences at the University of Groningen. It is one of eleven Faculties at the University and is comprised of four departments: Demography, Cultural Geography, Economic Geography, and Spatial Planning & Environment. The Faculty has one integrated research theme 'Towards Wellbeing, Innovation and Spatial Transformation (TWIST)' and 17 research topic areas under the umbrella of the University level research themes. Additionally, there are four Centres of Expertise including The Centre for Advanced Studies in Urban Science and Design (CASUS), the Groningen Research Centre for Southeast Asia and ASEAN (SEA ASEAN), the Population Research Centre (PRC), and the Real Estate Centre (REC). URSI is managed by a Director together with the Faculty's research policy coordinator and the Faculty Vice-Dean for Research. There is also a Director of the Faculty's Graduate School and a Faculty Funding Officer. The Research Ethics Committee also falls under the URSI umbrella.

The overarching research theme that shapes the research topic areas of the Faculty is TWIST. As a primary research theme, TWIST integrates a wide range of research endeavours. Although quite broad, it serves as a unifying theme that guides individual or research group activities but also allows flexibility to pursue emerging new research opportunities and directions. To this end, the 17 identified research topic areas fall within this broader framework, which in turn, complements the University's Research Themes of Healthy Aging, Sustainable Society, and Energy.

The expressed vision is of societies that transform spatially and socially in ways that facilitate improvement in wellbeing and innovation and thus the mission is to undertake and disseminate world-leading, distinctive research that helps to realise this vision, thereby contributing to achieving the United Nations Sustainable Development Goals.

Internationalism is also a strong component of this Faculty. Moving towards all-English language teaching programmes positions the Faculty to attract both Dutch and international students thereby

continuing to enhance the diversity of students and staff. Internationalism in the research arm of the Faculty is expressed through connections to the World Bank Group, World Health Organization, OECD, various United Nations bodies, as well as the Centres of Expertise – the Groningen Research Centre for Southeast Asia and ASEAN (SEA ASEAN). Further, internationalism finds expression also in the importance placed by staff on the connections between global issues and local or regional research.

The committee finds URSI to be an inclusive, interdisciplinary, research institute that undertakes very good international research of high societal relevance in the fields of geography, planning and demography. The further specification to demography, cultural geography economic geography and planning builds an interesting, sharp and complementary group of disciplines to meet the goal of enhancing well-being for all and the sustainable development goals. There exists a unique and strong collaboration in research projects (contract research 35% of total budget – balanced with strong 54% direct funding), the expressed vision is relevant and ambitious, but as the goals are global, they also hide some of the unique, well established and strong research themes. Key achievements for the 2013-2019 period include strong collaborations with the Dutch Department of Water Management & Public Works, Inter-faculty interdisciplinary research centre on Southeast Asia and ASEAN, large grants awarded to migration and immobility research, and emphasis on citizens, community engagement and social engagement.

In general, the quality and quantity of research, the strategy and its societal impact levels are high — and the initiative to develop research further are convincing and well documented. The main observation of the committee is the framing of the research programme around TWIST, and the tension around providing a coherent and unified research programme while simultaneously maintaining an internal division of research interests revolving around four departments. This arrangement appears to have the broad assent of the staff, and was well received by the committee, though there is always the potential problem that maintaining the departments may stand in the way of the integrative ambitions of TWIST.

3.3 Research quality

URSI is an internationally recognised milieu in spatial sciences, producing a high quality and large volume of research of importance to local and global issues. They represent core disciplines in the spatial sciences: demography, geography and planning. In their self-assessment report the Faculty states that it seeks to produce research that is communicable and communicated to the global academy and to societal stakeholders. In their research, teaching and societal engagement activities, the Faculty seek to empower current and future place makers who will make neighbourhoods, cities, regions and countries better.

Between 2013 and 2019, as reported in the self-assessment, the Faculty produced 1,350 publications, of which 696 were listed in Scopus. Publications include 793 articles (742 refereed, 51 non-refereed), 30 books (including authored and edited books), 154 book chapters, 89 PhD theses and 285 Professional Publications. Another indicator of the productivity and esteem of the staff is reflected in the number of Journal Editorships, including several Editor in Chief positions, Guest Editor positions, Book Series Editorships that staff members held during the review period. In addition, numerous awards were presented to staff members by universities, academies and interest groups. Staff are well represented as Board Members of Professional Societies as well. In terms of publication outlets and policies, the Faculty embrace Open Access Data and Publishing strategies and seek out these opportunities whenever possible. In general, it is recommended that the Faculty work to strategise the best and most impactful placement for research outputs to both continue to increase the profile of the Faculty and University as well as to limit extra time spent on lower impact academic publications.

It is notable that the URSI has been able to retain a high share of direct funding. It shows the commitment of the university to the research and the development of the URSI. An issue to be discussed, however is the relatively modest share of research grants (varies between 4 and 12% of total funding during the last seven years). Recognising that also third-stream money may be highly competitive, securing an increasing share of research grants would further add to the research quality of the Institute. Maybe the fit between the aim for innovations and short-term project funding, and highly competitive research outputs, should be discussed.

As a high-performance research unit, balancing the well-being of staff with the pressures for both teaching and research, is clearly a challenge that URSI wants to address. The clear aim to ensure the development of the individual researcher in various stages of their lives is concretely put into action several ways: the funding allocation (of 2000€ per FTE) by automatic annual transfers to Departments; the provision of start-up funding; and the creation of funding mechanisms to support research activities, seminars etc. In addition, the strategy and objectives consist of several activities to support a strong and supportive academic atmosphere and research environment. They for example stress the 1) need to be flexible in expectations about research output; 2) responsible use of bibliometrics and scientometrics 3) push for open access science. For most staff, the research commitment is 40%, although researchers can buy-out teaching with large grants. There are some teaching-only positions as well as a small number of special research appointments as "tenure-trackers" with 70% research appointments.

The dual pressure of maintaining and extending high quality publications will be an important task for the Faculty. While the committee feels that the Faculty is publishing high quality papers in top journals and maintaining an internationally recognised research profile, it also notes the retirement of a few key senior staff and the challenges and opportunities that come with having a large proportion of early career or new staff who may be trying to develop their teaching portfolios, in addition to developing new research projects. It will also be important to strategically decide on the best research outlets in order to focus on quality over quantity, and balance the time demands of additionally producing products for societal relevance. The Faculty are generally doing well but this is an area where greater attention to strategic publishing and societal engagement could benefit the well-being of staff.

In conclusion, the committee found the research quality of the Faculty to be very high. Publications from members of the Faculty make a significant contribution to the fields represented within URSI, they are of high scientific relevance and contribute to important, complex, and socially relevant global and local topics. As a whole, the staff are supportive of the organisation of research within the Faculty and feel they are able to contribute to a multiplicity of projects in collaboration with internal members of the Faculty as well as external academic and public/private entities.

3.4 Societal relevance

URSI has an impressive, multi-dimensional set of contributions to Societal Relevance. These dimensions are categorised in the self-assessment report to include 1) research products for societal target groups (over 400 publications between 2013 and 2019), 2) research products that are used by societal groups, 3) marks of recognition by societal groups and 4) a listing of key examples of research with significant societal impact. The Faculty are clearly engaged with societally relevant topics, including, but certainly not limited to migration and (im)mobility studies, aging, travel mobilities, green passenger transport, and energy systems. They take seriously the linkages between high quality academic research and its potential societal impact. A few notable accomplishments include the volume of publications intended for various societal audiences. These number over 400 and appear in multiple languages.

There is a reciprocal and participatory attitude toward societally relevant research in the Faculty. For example, the products that URSI produces are both targeted to specific audiences and derived from participatory and community-based input from societal groups. In other words, the output is not merely one-directional originating in URSI and flowing out to society, but rather several research projects actively embrace ideas originating within societal groups as drivers of new research agendas / projects. This is an innovative way to think about developing research projects that begins with societal relevance as driving high quality research.

The interviews during the online visit further reveal a strong desire, particularly among junior staff, to be involved with research that is socially relevant. Staff in general felt that while they had the freedom to conduct research without explicit societal orientation, most of the projects in the Faculty were societally relevant. There is some concern that there is a tension between producing societally relevant research products and traditional research products and that these tasks and expectations need to be balanced in order to keep staff workload and stress levels manageable.

Societally relevant research strategies, the committee heard in the interviews, are deeply inter-twined within the work of the Faculty. Projects show clear trajectories between initiation of projects, through funding and completion to outputs that include both traditional academic publications as well as publicly consumable outputs as per above. The Faculty strikes a good balance between international and regional / Dutch based research. Many projects, such as the Stayin(g)Rural project are centered on the local region but have international relevance. Research in this project is informed by public stakeholders, and societally relevant products such as policy documents and news interviews and articles will come out of the research in addition to a range of refereed articles in top journals. Other projects have similar profiles and highlight the interconnectedness of traditional and practical research, many centred around SDGs. Additionally, special appointments (bijzonder hoogleraren) – 0.20FTE, funded by various organisations, help support societally relevant research by facilitating the link between Faculty and societal organisations, which partially finance the position. Seven of these appointments occurred during the assessment period.

Staff are further engaged in developing societally relevant research products, such as serious games and videos that facilitate public decision-making around complex issues such as carbon footprints and affordable housing (as examples provided in the self-assessment).

In summary, URSI is clearly doing excellent work that is societally relevant. This work engages staff at all levels, is innovative, and addresses pressing societal issues. It also fits well within the frameworks that the Faculty use for their research, such as TWIST and the UN SDGs. As noted, there are also challenges to this work. These include managing workload and expectations particularly when societally relevant research activities add increasing time demands and therefore stress and workload management issues for individual staff. Although the staff is enthusiastic about this dimension of their work, it will be important to continue to monitor and balance workloads in this regard in the future. Lastly, there is no formal measure of value for this important work. Although staff invest significant time and effort, there are no mechanisms for assessing the impact of the work as related to the time and effort required.

3.5 Viability

As part of the interviews, the committee sought to push staff to consider their needs and aspirations, as a Faculty, for the future. The self-assessment provided a thoughtful and honest SWOT analysis and the committee worked to elicit more information about future directions based on this analysis throughout the interviews. The Faculty possesses numerous key strengths that illuminate great potential for continued development. For example, the Faculty has grown significantly in size since the last review,

incorporating many early career faculty. Combined with the inclusive, welcoming, work environment, there is much potential for professional growth and continued success for many years. Additionally, the organisational structure, characterised by "bottom-up" processes of determining research projects and teams, fosters significant collaboration across individuals and departments and an atmosphere that appears to be inclusive and collaborative across early and later career staff as well as across disciplines and departments. These are key strengths of the unit.

Further, the self-assessment highlights the growing emphasis in Dutch society and governance for universities to be more relevant and accountable to society, including increasing emphasis on the impact of research and knowledge utilisation, and specifically, an increasing culture of citizen involvement in The Netherlands in knowledge production and use. URSI has been especially thoughtful and progressive in addressing this dimension of research (societal relevance), and is well-positioned to continue to contribute to these discussions in the future. The Faculty stands well-positioned to contribute to societally relevant and societally engaged research based on sound scientific principles combined with ethical social engagement. The Faculty is poised to continue substantive contributions to this area.

From a traditional research perspective, the committee finds the use of TWIST as a unifying principle to be a work in progress. On the one hand, this framework allows for great flexibility and is a bottom-up collaborative strategy for developing research, and creating a fluid and adaptable research environment. It also has wide support among staff. It is seen by staff as a very positive framing instrument that fosters high quality inter- and multi-disciplinary research. On the other hand, it was unclear to the committee how this frame will continue to be refined in the upcoming years. This further makes a clear future direction for the unit difficult to identify. How, for example, will the frame facilitate the growth of new research while diminishing other areas? How will decisions about new directions be handled? What are the priorities of URSI moving forward? These are important next steps in refining and improving the research trajectories in the Faculty. Having a strategy for prioritising research directions will help focus efforts towards grant writing and research, thereby also helping to limit the proliferation of too many smaller or tangential projects and work overload for staff. On balance, the committee sees that this structure is working well for URSI and is part of why staff report being very satisfied with their work and the work environment. The next steps, however, need careful consideration in order to continue to make the bottom-up approach work well without becoming too diverse/fractured. Clarifying the long-term vision of the Faculty is important. Envisioning the future should be an important strategy goal for the leadership team.

The committee fully supports URSI's self-stated ambition to develop strong and relevant research profiles around key research areas. This ambition complements the committee's observations that the structure of TWIST needs to have clearer research priorities. It is also important for the Faculty to prioritise high impact journals over less impactful academic publications (such as book chapters). URSI is a leading research institution, producing highly relevant and important research focused on the northern region of The Netherlands and demonstrating international connections as well. The committee suggests that small modifications to research priorities and management, such as focusing on quality over quantity of publications, could yield an even higher research profile internationally.

From a viability perspective, the Faculty is well-managed in terms of recruitment, training, promotion. URSI appears to be a satisfying place to work. The Faculty is successful at grant acquisition and appears well funded. Investments are made in early career faculty, including leadership training and mentoring, and opportunities for both collaborative and independent research are embraced. Looking forward, continued attention to refining the TWIST model of research organisation will be important to streamlining research priorities. For example, opportunities for COVID influenced research will have to

be balanced with choices for other research opportunities. Having a process for prioritising research efforts could allow the flexibility and bottom-up approach to thrive without over-extending individual staff in too many directions.

3.6 PhD programme

The doctoral students are embedded in the graduate school of the Faculty of Spatial Sciences, which manages all PhD research in the faculty. In the beginning of 2020, 107 people were enrolled in the PhD programme. During the assessment period (2013-2019) 89 students completed their PhDs. The average completion rate during this period was 75% completion within 7 years and 50% completion within 5 years, and a drop-out rate under 10%. 55% of PhD students gained employment in academic positions after graduating while other graduates found employment in consultancy and government sectors.

During the site visit the committee met with enthusiastic PhD students who testified to a supportive and inspiring working culture. Students spoke of highly approachable senior staff, accessible supervisors, and a sense of community both among PhD students and within the broader faculty. TWIST, the research programme of the USRI is multidisciplinary in nature and hosts a variety of research themes. The interviewed students found this to be a major strength of the environment, since TWIST facilitated interdisciplinary projects. Students highlighted that they were able to draw on different types of expertise, for example through the possibility of interdisciplinary supervisory teams, a practice which has been further developed since the previous assessment.

Students were generally satisfied with the quality of supervision both procedurally and intellectually. The use of individual Training and Supervision plans in combination with a 9-month evaluation moment and yearly individual interviews with the graduate school coordinator provides an institutional framework for the PhD trajectory.

The self-assessment report indicates that doctoral students are expected to follow courses in project management and scientific integrity, and this was confirmed in the interview with the PhD students. Students also have access to courses offered via NETHUR (the Netherlands Graduate school of Urban and Regional Research) and Master and Research Master courses offered by the Spatial sciences Faculty.

The Faculty aims to increase completions from 12.7 to 17 completions per year through recruitment of more PhD students. The committee finds that the Research Institute has maintained a sustainable ratio between staff and PhD students with room for more recruitment.

Supervisory training is offered to members of staff and there have been broader discussions on intercultural communication within the faculty based around a book discussion. Considering that 48% of students who completed their PhD during the assessment period have an international background, and that the faculty aims to increase the number of international PhD students, efforts to improve intercultural communication, particularly between supervisors and students is a commendable initiative. Together with a buddy system and structures for welcoming international students, the faculty shows a high awareness of the needs of particularly international students to settle in both in their new (research) environment. Since the Faculty aims to increase the number of doctoral students, particularly on international scholarships, these are welcome initiatives.

In the Dutch context it is common for supervisory teams to consist of 2-3 members of staff, with the promotor position being held by a full professor. At the URSI the promoter role can be extended to associate professors, which, in the opinion of the committee, is a positive development. In this way,

associate professors that often do most of the supervision and have obtained the grants in many cases get credit for their work. In addition, this might help ease the workload of full professors.

Similar to other Dutch research institutes, the graduate school hosts PhD students on various types of funding streams, including Dutch and International scholarships. As mentioned in the self-assessment report, this has brought tensions because of differences in rights and benefits between PhD students on an employment contracts and those on scholarships. URSI has sought to decrease these differences by topping up international scholarship, providing equal access to all courses, and by making a travel and research budget of 5000 available to all students.

3.7 Research integrity

Research integrity within the unit is commendable. Issues of ethics and integrity are incorporated into each annual review, while workshops and training are available regularly and seem to be universally embraced. PhD students are incorporated into this ethos, indicating that research integrity procedures are part of the day-to-day functioning of research in the unit. Research integrity is discussed in every staff performance management interview and in every PhD annual process discussion. The Faculty actively utilises and refers to their 'Research Ethics and Research Data Management Policy and Procedure' document when considering research, and all researchers use an established set of protocols and review procedures prior to data collection. These observations were consistent across interview groups with all groups both aware of and supportive of the procedures in these protocols.

The committee commends the Faculty on their protocols, training, and diligence in following research integrity procedures. There appears to be open communication and review of these protocols with a goal of preventing violations and pre-emptively minimising burdens on vulnerable populations. The committee recommends continued discussions and attention by senior staff and management towards continued education and training of ethics and integrity standards, particularly as new protocols emerge.

3.8 Diversity

URSI goes to great lengths to create an inclusive and welcoming work environment. The committee heard from all interview groups about how friendly and welcome they felt working in this environment. Beginning with attention to language in advertisements for new positions, following through performance reviews, and social activities, there is careful attention paid to inclusivity within the Faculty. By gender, the Faculty is comprised of just over 40% female staff across all years of the review period; however, as noted in the self-assessment, PhD researchers are much more gender balanced than other categories of staff positions. By age, the review period has seen incremental growth in younger cohorts, with 31.6% 45 years+ in 2019 and a corresponding 68.4% under age 45. There is clear growth in the younger cohorts. By nationality, 31.6% of staff are not Dutch.

While these are the required measures of diversity outlined for the self-assessment, the committee was surprised that other measures of diversity were not actively considered or discussed. While 'diversity as a metaphor' was expressed in the interviews, the committee also wants to highlight that true diversity must be cultivated and nurtured. Other dimensions of diversity include more specific attention to region-of-origin diversity, racial, ethnic, cultural, and gender diversity. The review recommends greater attention to a broader definition of diversity and continued attention to gender diversity amongst staff.

The committee commends the efforts towards broad inclusion, the use of gender inclusive language, attention to gender balance on selection and review committees and conference panels and the

promotion of diversity awareness training within the Faculty and Active Bystander training for Senior Staff. It also heard from its interviews that the Faculty jointly read and discussed 'The Culture Map: Breaking Through the Invisible Boundaries of Global Business' by Erin Meyer, which several staff commented on as being a helpful and insightful way to learn about diversity together. These efforts speak positively about the genuine efforts towards diversity and inclusion that are not just measured but actively and thoughtfully practiced in the Faculty.

3.9 Recommendations

- Refine the articulation of the TWIST structure. Research orientation around the concept of
 TWIST seems to be working well for staff at all levels. It is a "bottom-up" process in which
 specific projects and research directions are chosen based on the interests of staff as well as
 community-driven questions. This level of flexibility and adaptability could serve the Faculty
 well in upcoming years. However, it is the recommendation of the committee that the Faculty
 leadership continue to refine the articulation of this structure;
- Be attentive to developing and refining the next steps in the TWIST model, specifically relating
 to a refined or more clearly articulated approach to decisions about prioritising research topics
 and strategies. This does not necessarily mean identifying a specific set of topics, rather, in line
 with the bottom-up process, this might entail identifying a process for pursuing or not pursing
 particular topics;
- Be strategic in developing high quality research products, with less attention to lower stakes
 products. The Faculty maintain a very high level of research quality and balance this with
 research projects and grants that focus on complex contemporary issues of society. Developing
 strategies for increasing the share of highly competitive research grants could support the
 development of high-quality research;
- Continue to explore innovative and community-driven research, in conjunction with
 theoretically-driven research. The review committee was impressed by both the volume and
 breadth of societally relevant research and most importantly by the responsiveness of the
 Faculty to both academy-driven and community-driven research endeavours. The committee
 commends the Faculty for innovative work and recommend that they continue to explore
 innovative and community-driven research, in compliment with theoretically-driven research.
 The recommendation along this dimension is for continued excellence and innovation but with
 an eye towards maintaining a balance between the types of outputs that are beneficial for
 research excellence and societal relevance;
- Acknowledge more fully or formally the effort and trade-offs (in time) for producing highly socially relevant work. The Faculty maintain high productively on societally relevant work. This is evident in the volume, breadth and innovations in this work. While highly significant, this work is also highly time consuming and it does not appear that there is a clear way to assess this work. This is an issue broadly within the Social and Spatial Sciences internationally.
 Nonetheless, if it is a key area of assessment for review procedures, the effort and trade-offs must be acknowledged;
- Think more broadly about diversity to include the numerous other dimensions of diversity beyond age, gender and international diversity. The Faculty has clearly worked hard to increase gender and age diversity but additional diversity types, such as race, ethnicity, sexuality, will still need to be actively monitored and managed;

Maintain USRI as a Faculty. URSI's ability to create an inclusive environment, foster inter-and
multi-disciplinary work and to produce high quality and socially relevant research is facilitated
by short communication lines, a smaller size, and a set of departments that complement and
enhance spatial sciences perspectives. This structure is an asset to Groningen University and
should be maintained.

4. The Urban Futures Institute (UFI), Utrecht University (UU)

4.1 Quantitative assessment

The committee assessed the quality, societal relevance and viability of the Urban Futures Institute (UFI) of the Faculty of Geosciences, Utrecht University (UU) both quantitatively and qualitatively. Its PhD programme, research integrity and diversity are assessed qualitatively. For the quantitative assessment a four-point scale is used, according to the standard evaluation protocol 2015-2021. The explanation of the criteria underlying the scores can be found in appendix C. The qualitative assessment of the Institute can be found in the next sections.

Given the standards laid down in the SEP, the committee has awarded the following scores to the Institute:

Research quality: 1

Relevance to society: 2

Viability: 2

4.2 Organisation, strategy and targets

'Urban Futures' (UF) is an integrated research programme that is housed within the Department of Human Geography and Spatial Planning (HGSP), which in turn is part of the Faculty of GeoSciences at Utrecht University (UU). While HGSP coordinates bachelor and master level teaching in the discipline, Urban Futures Institute (UFI) coordinates research and research training. The Faculty of Geosciences provides support to UFI through the Research Support Office, coordination of professorial hires, and its Communications office. UFI participates in UU's Strategic Themes and Focus Areas, in particular the Pathways to Sustainability theme with a focus on Transforming Infrastructures for Sustainable Cities, Future Food and Water, Climate, and Future Deltas. UFI is also represented in the boards and work programmes of two other university-wide themes: Dynamics of Youth and Institutions for Open Societies.

The decision to organise all research in spatial sciences under the theme of Urban Futures was a direct response to the last research assessment in 2012. That assessment argued that the prior organisation of research into four groups was creating problems of research coherence and internal collaboration, and led to groups without a critical mass. The initial response was to organise research under two clusters (Social Urban Transitions and Economic Urban Transitions), but these were subsequently merged into the singe UF programme with a focus on transitions to socially, economically and ecologically sustainable cities. The "transitions" orientation means that the UF theme also includes research that is rural in focus, but speaks to urban-rural relations and continua, including migration processes. UF focuses on both Global North and Global South. The programme is coordinated by a director and eight chairs, and the academic staff includes urban, economic, and development geographers, spatial planners, experts in geographic information science and some staff coming from backgrounds in other related fields.

The team at UU have made significant changes in response to the 2012 assessment, reflecting a clear openness to external critique. Though advanced, these changes are still underway. They have, however,

already had positive implications for the quality, relevance and vitality of research in the Spatial Sciences at Utrecht.

4.3 Research quality

Research at UFI is of an all-around world leading quality, and this commitment to quality is felt as much at the level of the professoriate as of the doctoral students, who gave the impression in interviews to be very ambitious. The self-assessment notes the following research areas as being of particular excellence in the unit: Mobilities, health and well-being; Related diversification, complexity and regional resilience; Smart urban governance; Translocal mobilities and development; Transforming infrastructures for sustainable cities. The assessment team shares this view.

Indicators of this quality are especially apparent in UF's successes with research funding and publications. There has been sustained success in securing high quality competitive grants, including from NWO general programmes, the European Research Council, and the NWO-VENI programme, among others. There has also been sustained success in publishing in high-impact journals, at levels that have improved since the prior assessment. Grant-acquisition is clearly emphasised in the unit and is not only the domain of more senior researchers. Interviews made clear that there is much focus on junior faculty preparing grant proposals, and considerable formal and informal, collegial support is offered to them in how to write competitive proposals.

Between 2013 and 2019, 47% of articles were published in the top 10% of journals (as ranked by impact factor), and 75% in the top 25% (between 2007-2012 these rates were 10% and 37%). These articles are also increasingly open access (54% in 2019, compared with 17% in 2013). The absolute quantity of publications on a per-FTE basis has declined over the assessment period, having been 3.7 per FTE in 2013 and 2.8 in 2019. This reflects the substantial growth in FTEs over the same period, from 31.09 in 2013, to 53.02 in 2019, and in particular the fact that 26.66 of the research FTEs in 2019 were PhD students, which inevitably dilutes productivity rates. Nonetheless, these are substantial levels of publication, all the more so given their concentration in high quality and impact factor journals.

Citation rates are high in the unit, and are spread across a range of staff. Over the assessment period, UFI articles were cited on 9,585 occasions (Scopus), meaning an average citation rate per article of 12.1 and per FTE-year of 30.8. Eight current staff members have H-indices of 20 or higher on Scopus (excluding self-citations), and one staff member was ranked by Thomson-Reuters in the top 1% of cited researchers across all fields for the period 2014-19. These are strong figures.

Research in UFI is also characterised by interdisciplinarity and the combination of diverse quantitative and qualitative methods. This has been facilitated through the decision to organise research around shared themes and shared conceptual frameworks rather than siloed chair groups (in part a response to the 2012 assessment). This is also encouraged at a PhD level, with a quarter of students having supervisory teams that combine different orientations. The unit is also supported in this regard by the Faculty's and University's own emphasis on interdisciplinarity.

4.4 Societal relevance

UFI distinguishes four modes of societal engagement: societal learning; societal advice; societal debate; and societal co-production and co-creation. There is ample evidence of the unit having been successful in the first three modes of engagement. The self-assessment refers to a number of these across a broad range of fields and societal sectors. Members of staff have been invited onto advisory boards of

different Dutch public and private bodies, an important indicator of the sustained societal advice offered by the unit, as well as of the degree to which different stakeholders value this advice.

There is evidence of some success in co-producing knowledge with societal partners, though this is more germinal (the case of 'mixed stakeholder classrooms' begins to point in this direction, for instance). The self-assessment notes that the unit has begun to dedicate more resources to developing its capacities in this fourth area, in particular through the recruitment of a 'knowledge broker' whose role is to foster internal discussion of societal relevance within UFI, and to help research staff develop strategies and networks that will enhance relevance. The unit is also exploring how to incorporate citizen science into its work and in this way combine participatory approaches with current research methodologies. However, to date there is limited evidence that research in the unit has been driven by questions emerging from dialogues with societal actors (though there is directly commissioned research by some public and private actors) or that the unit has any systematic means of analysing these dialogues as a means of identifying strategic research directions.

The overall and explicit orientation to the UN Sustainable Development Goals (and especially SDG 11 on Sustainable Cities) is a further asset in guiding the societal relevance of UFI's work. While much of UFI's relevance has been in the urban sphere, longstanding work on land governance for equity and sustainability through the LANDac initiative is a good example of how to sustain and institutionalise societally engaged research. While led from UU, LANDac is a joint initiative with Dutch government, NGOs, and universities, as well as partners in the Global South.

While societal impact is clearly valued in UFI, research quality and high-quality publications are the most important goals of the unit. In interviews it was noted that "academic interest comes first." This is a legitimate and understandable orientation, though it may have deflected some attention from the possibilities for co-creation of knowledge with societal partners.

4.5 Viability

As noted above, there has been significant growth in research FTEs over the assessment period, from 31.09 in 2013 to 53.02 in 2019 (see Annex B.2). The most significant growth has been in scientific staff and PhD students. Growth in scientific staff combines, especially, recruitment of early career researchers and senior Chaired professors (with five of the latter recruited or promoted since 2016, three as recently as 2019 however). This hiring strategy has two benefits for programme viability. The significant investment in assistant professors (who account for 67.1% of research capacity) builds a vigorous and innovative research community and an internal pipeline for future promotions. The substantial growth in the full professoriate has the potential to enhance grant acquisition. Currently, only 11.8% of research capacity is embodied in associate professors. While, in part, this reflects recent promotions to full professor, it also raises challenges for the internal cultivation of future leaders in the field who would rise from the rank of associate.

While grant acquisition increased 2013-2015, it has since declined back to levels comparable with 2013 (€10.45 million in 2019 compared to €9.56 million in 2013). Presumably, the expectation must be that the expansion of full professorial appointments will increase the grant acquisition capability in the years to come. The pattern in contract research acquisition is the mirror image of grant acquisition: declining between the years 2013 and 2016, and rising back since then, such that amounts in 2019 are also comparable with those in 2013 (€8.73 million in 2019, €7.28 million in 2013). Until now, there seems to be a constraint on resource generating capacity, with the sum of grants and contracts increasingly only modestly (~14%) from €16.84 in 2013, to €19.18 million in 2019, while research FTEs increased by 119%.

The implication is that FTE growth has been sustained primarily by direct funding/university investment. This is healthy for the viability of the programme. On the other hand, the relative stasis in external funding means that post-doc FTEs have stayed relatively flat (an increase of 27% from 2013-2019), and the increase in the number of doctoral students will have depended considerably on external, host-nation funding of scholarships. This latter point can have implications for the nationality composition of the PhD student body (see below on 'diversity').

With a roughly equal split between direct funding and grant/contract funding, the overall composition of revenue streams looks resilient. This will offer the unit some resilience in the face of possible instabilities in the research environment. These instabilities may derive from, inter alia, the fiscal and political fallout of Covid-19, and changing attitudes to student mobility. Of course, tightening labour markets may also mean that student numbers increase, which will enhance revenues. The more general point is that the external environment is more uncertain than normal, and that the unit's SWOT analysis and strategy for the future seems to presume a more stable environment than can perhaps be reasonably assumed. The viability of the unit might be enhanced by having different strategies adapted to different future scenarios for the external environment. In this vein, the unit's plan to increase funding of temporary staff via 'social impact projects obtained from governments and firms' is wise.

Similarly, wise is the projected strategy of prioritising increased quality of junior staff performance (as, for instance, measured by citations), rather than seeking any significant further increase in FTEs.

Viability also depends on disciplinary coherence and individual staff resilience. That three out of the eight new chairs come from other fields than human geography, regional science and planning is good for interdisciplinarity but could carry a risk of fragmentation. This risk seems to be reasonably handled at the moment however, given that the newly recruited professors with background in other fields seem to be well integrated in the spatial sciences community. Future recruitment strategy should still aim at striking a sound balance here. At present, staff seem relatively comfortable with work-life balance, and did not raise concerns about burnout – though future emphasis on increasing impact and quality may place new pressures on staff. In that regard, the unit's practice of fostering of "academic families" of staff at different career stages to serve as cross generational support groups is to be commended, as is the hiring of a psychologist to support the doctoral staff.

4.6 PhD programme

UFI has a dynamic PhD programme in which students appear to be enthusiastic and ambitious. The doctoral students within the PhD programme of UF are embedded in the graduate school of Geosciences. In the beginning of 2020, 36 people were enrolled in the PhD programme. They are attracted by the high standards and interdisciplinarity of the unit.

Time to completion has improved since the last assessment, with 54% of students who began between 2012-2015 finishing within 5 years with considerable fluctuation between individual cohorts. This is a point of concern in the unit and is an ongoing topic of discussion among students and staff, which is positive. The unit has measures in place that seek further improvement for time to completion. This is clearly an indicator of performance and quality to keep an eye on.

A detailed quality assurance plan for PhDs has been installed. It specifies expectations, resources, and formal procedures such as the training and supervision plan which are relevant to all doctoral candidates. In addition, there are councillors available at different levels, including departmental PhD mentors, confidential advisors on faculty and university, a faculty career officer for PhDs and a PhD psychologist. The committee considers these to be positive developments which are likely to continue

to improve the completion rate. The committee particularly commends the availability of a PhD psychologist as an important innovation to support students' progress.

Supervision is professional, supportive and informal, and is complemented by a variety of courses. PhD students have access to compulsory courses on research ethics and scientific integrity and to voluntary courses offered via NETHUR (the Netherlands Graduate school of Urban and Regional Research) and Utrecht University. While PhD students can follow courses of their choosing, the quality assurance plan for PhDs and the self-assessment report places a strong emphasis on 'learning on the job'. The committee recognises that an individualised learning trajectory is typical for Dutch PhD students. However, the committee wishes to stress that it is important that students are supported in shaping such an individual learning trajectory, for example by formally including discussions about this in the yearly progress reviews.

UF trains its students primarily for an academic career, and has been very successful in this regard, with 52% of graduates securing post-docs or faculty positions. Support is also available for non-academic careers, especially from the Faculty. UFI recognises the importance of enhancing such support given the tight academic job market.

The current PhD body is primarily from East and Southeast Asia (62.5%) and Europe, with just two students from Uganda and none from Latin America. The pattern among completed PhDs is not dissimilar: E/SE Asia (39%) and EU-Europe (43%). PhD composition is a reflection of the country focus of research grants and the country of origin of fellowships. This leaves the department only restricted room for manoeuvre. However, the quite limited international diversity of the student body may limit student exposure to diverse perspectives among their peers.

The doctoral programme has been a primary instrument through which the unit has increased diversity and overall FTE growth. This makes UFI's success as assessed against several indicators somewhat dependent on the continued vitality of the PhD programme. This is a potential source of vulnerability.

The committee met with positive students who felt inspired by the impact orientation and the interdisciplinarity of the Urban futures research programme. All in all, the committee finds that doctoral students in the Urban Futures programme have access to a wide range of support, and that efforts are made to keep several lines of communication open.

4.7 Research integrity

The self-assessment notes that support structures for data management, data security and ethics are largely in place, while daily research practices do not yet always apply appropriate measures. Culture change in these areas can be a slow process and notwithstanding it is clear that the unit (together with the Faculty) has made important efforts to foster this change. Junior faculty note that the Faculty Research Office is very active in explaining new data management rules. Doctoral students confirmed that ethics and integrity are emphasised and that most had received training in these topics. There was no evidence of failures in research integrity and UFI is working in a very deliberate way to further enhance standards.

4.8 Diversity

The unit has made significant progress in enhancing its diversity, above all as regards gender. Fifty-one percent of the staff is now female and this measure of diversity has improved across all ranks, though females are still underrepresented among full professors (40% by 2020) and associate professors (33%). The majority of PhD students are female (58%). The recruitment of women PhD students has thus been

a primary means through which gender diversity has been enhanced. This is positive in terms of pipeline development. However, it makes gender diversification dependent on sustained funding for PhD students – and also means that securing diversity has been more successful in soft-money positions than in core-funded positions. Enhancing diversity at the associate level will be important for gender parity in the cultivation of future leaders, whether these stay at UU or move elsewhere in the Dutch system.

The diversity of nationalities represented within the staff has also increased, with the share of Dutch staff decreasing from 63% to 44% from 2013 to 2019. Non-Dutch European staff share has remained stable at 17-20%. The main source of increased international diversity has again been through the doctoral programme, with an increase in scholarship students from China, Vietnam and Indonesia: the share of Asian staff members increased from 12% to 32%, 2013-2019. There is very limited presence of South American or African staff. As in the case of gender, non-European diversity is primarily enhanced through the PhD programme and soft money. While understandable, this also makes such gains dependent on sustained flows of such monies. Also, it means that the pattern of internationalisation is partly dependent on which countries have the most substantial doctoral scholarship programs at any one point in time.

Taking rank as an imperfect indicator of age diversity there is a healthy pool of assistant professors, but only 11.8% of faculty are associate professors. As already noted, this can limit the emergence of new senior leadership and suggests that it is important for the department to have an active programme of mentoring diverse junior faculty so that they can progress in due time.

There is a lack of discussion of diversity along the lines of sexuality, race or ethnicity in the self-evaluation. This is noteworthy since such issues are increasingly on the agenda in academic institutions worldwide. While the department appears to have had an active strategy of growth and recruitment, this seems not to have been used to address ethnic or racial diversity in faculty composition in a strategic or goal-oriented manner.

While interviews revealed a clear commitment to diversity, it was also said that "We always hire the best researcher irrespective of gender." While this is an understandable strategy and statement, the best researcher may not always be the best candidate for enhancing the quality of the research environment. If the argument is that diversity enhances the research environment and the quality of knowledge generated, then a case can be made for laying greater emphasis on diversity in recruitment decisions. This should apply to racial, ethnic and sexuality diversity as well as gender, nationality and age.

4.9 Recommendations

The panel applauds the stated ambition of UFI to continue to stimulate theoretical and methodological developments, including systemic approaches toward analysing the complexity of wicked urban issues, application of network theory and analysis to social and economic urban issues, comparative studies at the international level, combining Artificial Intelligence approaches with Geoscience, Living Lab approaches and Citizen Science. In addition, the panel recommends UFI to:

• Deepen discussions and active practices in relation to citizen science, participatory research and other orientations that will enhance the share of research in UFI that is co-produced and co-created with societal partners. Invest in resources to facilitate this type of research;

- Roll out the MERIT Management, Education, Research, Innovation and Teamwork system, and use it as a means not only of supporting faculty development but also of recognising and strengthening the forms and intensities of societal engagement;
- Revisit the SWOT analysis in the self-assessment to take more fully into consideration the
 changes (financial, political, global) in the external environment over the last year. Reflect on
 the implications of these changes for strategy and elaborate alternatives on the current
 strategy (i.e. a Plan B, and C) in order to enhance adaptiveness and resilience of the unit;
- Be more explicit in addressing dimensions of diversity beyond gender, nationality and age. Be
 more proactive in advertising positions of all sorts such that they generate more diverse pools
 of candidates. Use vehicles other than the doctoral programme to address and enhance
 diversity;
- Be more conscious and explicit in using the PhD pipeline and post-doctoral recruitment as a means of increasing diversity, including beyond gender diversity.

5. The Department of Geography, Planning and International Development Studies (GPIO), University of Amsterdam (UvA)

5.1 Quantitative assessment

The committee assessed the quality, societal relevance and viability of The Department of Geography, Planning and International Development Studies (GPIO) of the Faculty of Social and Behavioural Sciences, University of Amsterdam (UvA) both quantitatively and qualitatively. Its PhD programme, research integrity and diversity are assessed qualitatively. For the quantitative assessment a four-point scale is used, according to the standard evaluation protocol 2015-2021. The explanation of the criteria underlying the scores can be found in appendix C. The qualitative assessment of the Institute can be found in the next sections.

Given the standards laid down in the SEP, the committee has awarded the following scores to the Institute:

Research quality: 1

Relevance to society: 1

Viability: 2

5.2 Organisation, strategy and targets

The GPIO department of the Faculty of Social and Behavioural Sciences, University of Amsterdam (UvA) has quite a complex organisational structure, as although it is one department in a very large Faculty, the setting for research is the Institute for Social Science Research (AISSR), which brings together four departments and two teaching institutes. Within the GPIO department there are four Programme Groups: Urban Geographies, Geographies of Globalisations, Urban Planning, and Governance and Inclusive Development. Although there was some concern expressed about high transactions costs associated with this arrangement, it appears to be a structure that consistently supports and promotes interdisciplinary research, and provides a flexible way of working for faculty from a variety of units and disciplinary backgrounds.

The committee was impressed with the achievements of the GPIO department, and with the openness and confident framing of the self-study. The strategy section is well written and strong conceptually, stressing that the goal of the department is to make empirically grounded contributions to intellectual and societal debates that are sensitive to spatial dimensions of social phenomena, and attentive to real world problems and challenges and collective action problems. This is a clear and concise way of framing the potential role of policy-relevant research in geography and spatial planning. The five declared strategic objectives for the 2013-2018 period: internationalisation, interdisciplinary connections, pluralism and diversity, quality over quantity and subsidiarity/self-governance, are all important, and clearly articulated. The committee also found significant evidence of success in achieving these strategic goals. Faculty pointed to the increasingly global reach of faculty research networks and research projects, as well as to increasing cross-national partnerships within Europe.

The commitment to interdisciplinarity is also clear. In particular the Centre for Urban Studies and the Centre for Sustainable Development Studies are strongly interdisciplinary/transdisciplinary research clusters that have major international reputations, and significant impacts beyond the Netherlands.

Most actual work is carried out within Programme Groups, (Urban Geographies, Geographies of Globalisations, Urban Planning, and Governance and Inclusive Development) which are the basic building blocks and working environment of both faculty and students. These appear to work effectively, as many faculty spoke positively of this arrangement. Regular meetings, faculty development including individual evaluations, internal peer reviews of papers before submission, PhD seminars, guest speakers, advice and support for grant development and writing, all happen within the Programme Groups. It was also argued that Programme Groups facilitate 'strategizing from below,' the bottom-up development of new research themes and projects. This organisation seems highly productive, and serves both to provide a supportive research environment for faculty, and for research collaborations and teaching. It was also evaluated favourably by PhD students.

Several members of faculty and the academic leadership of the GPIO department pointed to the important value of 'slow science' and valuing quality over quantity. This is easy to say, and harder to actualise. The emphasis in the UVA self- assessment on quality over quantity is encouraging, as we have all been pushed in recent decades towards quantity by various metrics, whereas in the long term it is quality in research and teaching that really matters. There is ample evidence to support a top score on quality and scientific relevance of the research produced in Spatial Sciences at UvA.

5.3 Research quality

The research goals and strategy that the department has set for itself are reflected in the research groups and publications documented in the self-assessment. UvA GPIO ranks 17^{th} and 18^{th} in the 2020 QS Global Subject rankings, for Development Studies and Geography respectively, which is a notable achievement (a 2020 ranking can be viewed as a good indication of the quality of research from 2013-2019). Over 200 publications annually for an academic staff of FTE including PhD students between 46 and 60 in any given year is normal to high. Total publications per FTE of between 3 and 4 every year is high, while 7.5 per faculty FTE (ie. with PhDs excluded) is very high. A key indication of high quality is that 49% of the papers published by UvA Spatial Sciences researchers are in the top 10% of journals as ranked by Scopus, and 77% in the top 25% of journals. This is impressive.

The steady and high level of research funding is important evidence of quality, as most of the funding is peer-reviewed and competitive. There has been a shift from direct funding from the government towards competitive external scientific grants and research contracts. As the self-assessment notes, 'the AISSR is the second most successful institution in the social sciences (after the University of Oxford) in terms of ERC grants awarded.' While success in competitive grants is an indicator of quality, the self-assessment also suggests that the stress associated with competitive research funding may not be sustainable. It is certainly good to see the deliberate focus on the potential downside of work-related stress, and thoughts about potential mitigating strategies.

The number of citations is also high, in line with a high-quality research unit. Also noted is a continuing high rate of scholarly prizes, editing roles of peer-reviewed scientific journals, and leadership of academic institutions.

Overall, the GPIO department demonstrates clear evidence of excellence in research, teaching, and contributions to Netherlands, European, and global society.

5.4 Societal relevance

The wide range of important societally and policy engaged research seems exemplary in fulfilling the goals of producing societally relevant and impactful research and engagement at the local, regional, national, and global scales. The GPIO encourages faculty to produce socially relevant research, to collaborate with and disseminate research findings to relevant publics, and also supports active engagement in producing solutions to pressing societal challenges. The evidence provided in the self-assessment indicates deep and long-term linkages with local and international networks in producing policy relevant research inputs to major local and global challenges.

The five examples mentioned in the self-assessment are all impressive: research on the promotion of cycling as an urban mobility practice; a high-profile exhibition on the relationships between criminality and popular culture; major contributions to the award-winning UNEP Global Environment Outlook 2019; contributions to architectural design thinking that influenced national policy in the Netherlands; and significant inputs to strategic housing policy in collaboration with a number of municipal governments in the Amsterdam area. Both the Centre for Urban Studies and the Centre for Sustainable Development Studies are known for major contributions to the production of socially relevant knowledge. The nine Special Chairs that are funded by companies and societal organizations such as municipalities and NGOs also provide important linkages to non-academic research and policy conversations.

GPIO faculty produce publications aimed at professional and public audiences, participate in public debates, engage in social media, or serve on expert committees and advisory bodies. Much of the department's research is outstanding in this regard, with nationally and globally significant contributions.

It is notable that the teaching function was also mentioned by several of those interviewed as an important aspect of societally relevant contributions, in the form of training students to think and act as citizens.

5.5 Viability

The SWOT analysis in the self-assessment is convincing. In particular the heavy teaching load is mentioned several times throughout the self-assessment and was also brought up by several individuals during the committee's site visit. A combination of high teaching load, high expectations for research, publication, and grant funding, and a complex organizational structure that demands lots of meetings seems unlikely to be sustainable in the longer run.

Another issue that appears to threaten long-run viability is the 'pyramidal' rank structure with many assistant professors, a moderate number of associate professors, and tight limits on the number of full professors. This seems likely to weaken the unit in the longer run, as strong associate professors who see little chance of advancement may leave to take up positions elsewhere. In some cases, this has potential to break up strong research groups, but perhaps of greater consequence is that the strongest mid-career faculty may start to imagine their own future careers as best located elsewhere. Managers argued that inability to promote within the department was primarily a result of budget constraints. Constraints on promotion to full professor is partly compensated by nine 'special chair professors' who are paid with outside funding. All full professor positions are advertised internationally, which can lead to excellent hires. But it may be advisable to also allow promotion of internal candidates in some cases. Several faculty noted that the GPIO department would benefit from greater flexibility in promoting internal candidates to higher ranks.

One of the aims is internationalisation and the change has been notable. As stated in the document, in 2013, around one-fifth of the staff originated from outside the Netherlands. By 2019, this had increased to one-third. While this contributes to stronger ties across borders, it also creates new issues regarding remaining embedded in and connected to Dutch society.

As at the same time the absolute number of FTEs and the share of direct funding has dropped notably between 2013-2019 (from 32% 16.98FTE to 25% 11.38 FTE), and the share provided by research grants has increased (from 29% to 38%). This puts the viability of this high performing unit working with very relevant themes at risk. As also some of the most established scholars (with the most citations and the most external funding) have retired, the risk of continuity increases and should be addressed internally at the Faculty and University level. Furthermore, allowing the share of direct funding to drop so dramatically in such a short period of time creates potentially serious risks to long-run viability.

There were concerns that in an increasingly resource-scarce funding environment it is hard to maintain a focus on quality and 'slow science,' as pressure grows to apply for more and more grants. Similarly, continuing changes to and reduction of government funding are seen as a risk. A particular concern is the perceived shift of funding to natural sciences and engineering and away from social sciences.

Of possible concern going forward is that the self-assessment points to the drop in recent years in the number of PhD students, and offers no explanation of why this has occurred. As noted, two years do not necessarily indicate a trend, and may reflect coincidence as these are small numbers. But if this continues this may indicate a problem.

5.6 PhD programme

The committee met with a highly international group of doctoral students who were enthusiastic about their research environment and passionate about their projects. The committee was impressed by the quality of candidates and evidence of talent spotting and retainment of talent among master students through admission to the PhD programme. Students testified to being well-embedded in the department and within the wider faculty by means of the AISSR programme groups for PhDs and in the four departmental groups. The committee commends this combination as it facilitates students both to be well embedded in the research milieu of the department and to engage in interdisciplinary discussions on their research topic within the wider faculty.

In general, PhD students are satisfied with the content and regularity of PhD supervision. Overall, the AISSR PhD guide outlines a clear trajectory with specific and ambitious milestones; an 8-month paper, yearly progress review and goals for output, e.g. the production of 3 journal articles or chapter drafts written by the end of the 3rd year. The committee commends the use of clear milestones which can support PhD students to achieve timely completion. It is positive that not only academic progress, but also mental wellbeing are topics that are discussed in the yearly reviews.

At the time of the assessment, 27 PhD candidates were enrolled. During the assessment period, 65 candidates received their PhD. Completion rates were 35% within 4 years and 56% within 5 years and 73% within 7 years. The 4-year completion rate is comparatively high and so is the percentage of students gaining employment within academia after graduation (71%). Other students found employment in International NGOs, private research and consultancy, and national and local government. The high level of graduates finding work within academia and the high completion rates are a testament both to the quality of admitted candidates and to the quality of the graduate school.

All PhD candidates in the GPIO department are enrolled in the AISSR PhD training programme. This programme is fully integrated in the Graduate School of Social Sciences. All candidates are expected to

complete the AISSR-GSSS doctoral training programme covering methodology, theory and ethics (30 EC) which is highly evaluated by students. Students also have access to graduate-level courses at UvA and VU, in addition to courses from Nethur. In addition, students have the option to set up tailored courses in the form of reading groups, an option which was highly appreciated by students the committee spoke with. All in all, the committee is impressed with the combination of compulsory courses in combination with a wide range of optional courses, which ensures that all doctoral candidates have a strong training that supports their PhD projects. In the interview with the committee, students also testified that they found available courses enriching and one of the advantages of conducting ones' PhD at the GPIO department.

5.7 Research integrity

The departmental leadership, faculty, and students all demonstrated awareness of research integrity issues, including in research culture, data management, transparency, prevention of violations, dealing with ethical dilemmas. The GPIO has a well-established process to review research proposals and methods involving human subjects, and all the faculty and students we talked to appear to understand and adhere to these standards. The committee did not see any issues that were of concern in this regard.

5.8 Diversity

The GPIO department demonstrates a consistent commitment to multiple forms of diversity. According to comments by multiple participants during the site visit, it seems that the value of diversity has been effectively institutionalised. Researchers are roughly 50/50 male female. Several comments by faculty at the GPIO department pointed to aspects of diversity – of race, pluralism of research ideas and approaches, sexual orientation. This is important, as it is widely argued that a diverse research institute staff is likely to produce both higher quality and more socially relevant research output, and better teaching outcomes.

Maintaining and enhancing diversity is an ongoing challenge, as there is always systemic bias in favour of established groups, and social understanding of the meaning of 'diversity' is constantly changing. While the GPIO department appears to have been relatively successful in achieving gender, age, and international diversity, the department is encouraged to continue their efforts in this regard.

5.9 Recommendations

Overall, the committee was impressed with the manifest strengths of the Department of Geography, Planning and International Development Studies. This is an extremely strong milieu, with high-performing scholars at all ranks. The program groups appear to work well for both faculty and students. The committee makes seven broad recommendations for the future development of GPIO.

• It was suggested that teaching loads are heavy, and that this makes it more challenging to conduct research at the highest level and obtain competitive grants. In particular a number of factors that are outside the control of the department, including very long teaching terms and high contact hours were pointed to. Careful consideration should be given to teaching loads and to overall contact hours to ensure that GPIO remains competitive with comparable research units. One possibility would be to create mechanisms to allow faculty to concentrate their teaching into shorter periods within each teaching term. This would allow more time for focused research activities;

- Some increased capacity to promote faculty from within the department in order to retain top
 faculty and strengthen important research clusters is recommended. As it is, the strict
 adherence to a 'pyramid' system with limited numbers of full professors seems likely to
 encourage high-performing faculty to seek opportunities for promotion elsewhere. This is a
 perverse incentive of the worst sort and should be addressed, even if doing so is challenging;
- The Programme Groups seem to be very effective units for both faculty and students. These should be maintained and carefully nurtured and strengthened;
- The GPIO is a department located within a much larger faculty. This leads to some higher transaction costs and complexity of decision-making, but perhaps more importantly seems to produce significant issues in terms of funding. Concerns were expressed that funding is tight in part because the GPIO does not offer an English-language undergraduate programme when other units within the Faculty of Social and Behavioural Sciences do, and that funding is shifting to other units even though GPIO is performing well. This seems to imply that GPIO is pressured to create an English-language undergraduate programme simply to maintain its share of the funding pie. If such a programme is considered, great care should be taken to ensure that teaching loads for individual faculty are not further increased;
- Similarly, the decreasing share of Direct funding and the associated increase in the share of Research Grant funding poses real longer-term risks as competitive funding programs are inherently less predictable than direct funding. The Faculty is encouraged to address this funding issue or risk weakening a high-performing and world-class department;
- The self-assessment points to the drop over the last two years in the number of PhD students enrolled. While two years do not necessarily indicate a trend, we recommend that enrolments of PhD students be carefully monitored, and if the decline in numbers continues that the department respond proactively with enhanced recruitment efforts;
- Be more explicit in addressing dimensions of diversity beyond gender, nationality and age. Be
 more proactive in advertising positions of all sorts such that they generate more diverse pools
 of candidates.

Appendix A - Programme of the site visit

Monday October 5 – preparation site visit

Time	Part
15.00 - 15.30	Introduction
15.30 - 16.00	Explanation Dutch research system
16.00 - 16.15	Break
16.15 - 17.15	Explanation our task, the procedure and planning
17.15 - 18.15	Break
18.15 - 19.45	Discussing first findings each institute

Tuesday October 6

Time	Part
UNIVERSITY OF GRONINGEN	
14.00 - 14.30	Preparatory meeting UG
14.30 - 15.10	Management
15.20 - 15.50	Junior staff
15.50 - 16.15	Break
16.15 - 16.45	PhD students
16.50 - 17.30	Senior staff
17.30 - 18.30	Break
18.30 - 18.50	Reflections + preparing questions management
18.50 - 19.20	Second meeting with management
19.20 - 20.30	Evaluation

Wednesday October 7

Time	Part
UTRECHT UNIVERSITY	
14.00 - 14.30	Preparatory meeting UU
14.30 - 15.10	Management
15.20 - 15.50	Junior staff
15.50 - 16.15	Break
16.15 - 16.45	PhD students
16.50 - 17.30	Senior staff
17.30 - 18.30	Break
18.30 - 18.50	Reflections + preparing questions management
18.50 - 19.20	Second meeting with management
19.20 - 20.30	Evaluation

Thursday October 8

Time	Part
UNIVERSITY OF AMSTERDAM	
14.00 - 14.30	Preparatory meeting UvA
14.30 - 15.10	Management
15.20 - 15.50	Junior staff
15.50 - 16.15	Break
16.15 - 16.45	PhD students
16.50 - 17.30	Senior staff
17.30 - 18.30	Break
18.30 - 18.50	Reflections + preparing questions management
18.50 - 19.20	Second meeting with management
19.20 - 20.30	Evaluation

Friday October 9

Time	Part
14.00 -16.00	General evaluation
16.00	Presentation

Appendix B.1 - Quantitative data RUG

Table 1 Research staff in fte UG

	2013	2014	2015	2016	2017	2018	2019
Scientific staff	11.5	13.3	15.0	16.9	16.6	17.8	20.7
Post-docs	8.2	5.1	2.8	6.7	7.8	9.0	8.5
PhD students	44.8	68.5	61.7	54.7	50.9	52.4	58.2
Total research staff	64.5	86.9	79.5	78.3	75.3	79.2	87.4

Table 2 Funding – UG

	2013	2014	2015	2016	2017	2018	2019
Funding in FTE							
Direct funding	37.5	37.5	36.6	40.4	40.6	41.7	46.8
Research grants	3.7	8.2	9.2	7.8	7.3	5.9	3.7
Contract research	23.3	41.2	33.7	30.8	27.4	31.6	36.9
Other							
Total funding	64.5	86.9	79.5	79.0	75.3	79.2	87.4
Expenditure in k€							
Personnel costs	2812.4	3699.3	3275.8	3683.4	3568.1	3782.3	4223.2
Other costs	942.4	1304.8	924.5	1084.8	1177.9	1335.5	1426.2
Total expenditure	3754.8	5004.3	4200.3	4768.2	4714.0	5117.8	5649.4

Appendix B.2 – Quantitative data UU

Table 1 Research staff in fte UU

	2013	2014	2015	2016	2017	2018	2019
Scientific staff	8.54	10.16	14.90	14.27	16.76	16.95	18.74
Post-docs	6.00	5.16	4.86	5.25	7.49	6.14	7.62
PhD students	16.55	18.82	22.86	26.34	28.42	29.28	26.66
Total research staff	31.09	34.13	42.63	45.87	52.68	52.37	53.02

Table 2 Funding – UU

	2013	2014	2015	2016	2017	2018	2019
Funding in FTE							
Direct funding	10.96	12.54	15.38	16.52	17.59	16.87	17.38
Research grants	9.56	13.24	14.31	13.35	10.65	8.90	10.45
Contract research	7.28	4.17	4.74	2.90	6.53	7.51	8.73
Other	-	-	-	-	-	-	-
Total funding	27.81	29.94	34.42	32.79	34.76	33.28	36.54
Expenditure in k€							
Personnel costs	2062	2383	2578	2824	2992	2964	3300
Other costs	883	917	962	901	893	738	660
Total expenditure	2945	3300	3540	3725	3885	3703	3960

Appendix B.3 – Quantitative data UvA

Table 1 Research staff in fte UvA

	2013	2014	2015	2016	2017	2018	2019
Scientific staff	13.60	14.34	12.86	15.72	14.59	13.39	13.78
Post-docs	11.33	12.02	11.44	11.29	11.21	11.81	11.00
PhD students	27.83	33.44	33.95	32.48	31.16	22.19	21.19
Total research staff	52.76	59.80	58.25	59.49	56.97	47.39	45.97

Table 2 Funding – UvA

	2013	2014	2015	2016	2017	2018	2019
Funding in FTE							
Direct funding	16.98	17.43	15.21	15.41	11.78	9.64	11.38
Research grants	15.54	18.39	17.73	20.56	22.96	22.16	17.44
Contract research	19.40	23.50	24.97	22.53	21.27	13.93	16.27
Other	0.84	0.48	0.33	0.99	0.95	1.66	0.88
Total funding	52.76	59.80	58.25	59.49	56.97	47.39	45.97
Expenditure in k€							
Personnel costs	3090	3280	3240	3400	3420	3070	3190
Other costs	2390	2310	2230	2280	2010	1830	2020
Total expenditure	5490	5590	5460	5690	5430	4900	5210

Appendix C – Meaning of the scores

Category	Meaning	Research quality	Relevance to society	Viability
1	World leading/ excellent	The research unit has been shown to be one of the few most influential research groups in the world in its particular field	The research unit makes an outstanding contribution to society	The research unit is excellently equipped for the future
2	Very good	The research unit conducts very good. internationally recognised research	The research unit makes a very good contribution to society	The research unit is very well equipped for the future
3	Good	The research unit conducts good research	The research unit makes a good contribution to society	The research unit makes responsible strategic decisions and is therefore well equipped for the future
4	Unsatisfactory	The research unit does not achieve satisfactory results in its field	The research unit does not make a satisfactory contribution to society	The research unit is not adequately equipped for the future