

Research Review

UNU-MERIT and ICIS

2010-2015

United Nations University – Maastricht Economic and social Research institute
on Innovation and Technology (UNU-MERIT)

International Centre for Integrated assessment
and Sustainable development (ICIS)

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Preface

For the assessment committee, it was a pleasure to review the research programs undertaken at the UNU-MERIT and ICIS institutes at Maastricht University. We appreciated the thorough self-evaluation report and look back with satisfaction upon our site visit on 9-10 January 2017.

Our assessment committee consisted of four professors from renowned universities in Germany and the Netherlands, and was ably supported by our secretary, Paul Diederer. We enjoyed working together, drawing on our different backgrounds and research traditions in examining the strengths and weaknesses of these two Maastricht based research institutes. It has been an intellectually stimulating experience. I greatly appreciated the commitment and high quality contributions of my fellow committee members and of our secretary.

We would like to thank the deans of the faculties to which these institutions belong as well as the research leaders, the academic staff and the PhD candidates at both institutes. They compiled detailed quantitative and narrative documentation in the self-evaluation report and guided us, without influencing us, through our activities. During the site visit, we found our meetings with staff frank, open and insightful.

We hope that our assessments of each institute's program and activities, as well as of their plans for future closer collaboration, will help to strengthen the research on human development and sustainability at Maastricht University and its societal relevance.

Rolph van der Hoeven

Committee chair

1 Introduction

1.1 The scope of the assessment

At the request of the board of Maastricht University, the assessment committee has jointly reviewed the research of two research institutes at the university, UNU-MERIT and ICIS. The assessment covers research conducted in the period 2010-2015.

The assessment follows the *Standard Evaluation Protocol 2015-2021 – Protocol for Research Assessments in the Netherlands (amended version, 2016)*, developed by the Association of Universities in the Netherlands (VSNU), the Royal Academy of Arts and Sciences (KNAW), and the Netherlands Organisation for Scientific Research (NWO).

In accordance with the Standard Evaluation Protocol, the committee has been asked to assess the research program conducted by UNU-MERIT and ICIS, as well as its strategic targets and the extent to which it is equipped to achieve them. This should be done by judging the unit's performance on the three SEP assessment criteria: i) research quality, ii) relevance to society, and iii) viability.¹ The committee was required to pay special attention to the following aspects:

1. Ambition to perform excellent research.
2. Ambition to play an active role in societal value creation, more specifically by providing relevant research for policymaking as well as supporting other societal stakeholder groups.
3. Ambition and aim to have a close alliance of research goals with the development goals of the United Nations (UN), through the participation of the UN University in the program.

In addition, the committee was asked to provide a qualitative assessment of the research program by UNU-MERIT and ICIS as a whole in relation to its strategic targets and to the governance and leadership skills of its management. Finally, in accordance with the SEP, a reflection was required on: i) PhD programs, ii) research integrity, and iii) diversity.

This report describes findings, conclusions and recommendations of the external assessment of UNU-MERIT and ICIS.

1.2 The review committee

The board of Maastricht University has appointed the following committee members for the research review:

- Prof.dr. Rolph van der Hoeven (chair)
- Prof.dr. Guido Bünstorf
- Prof.dr. Godfried Engbersen
- Prof.dr. Daniel Lang

More detailed information about the members of the committee can be found in Appendix A. The board has appointed dr. Paul Diederer as the committee secretary.

¹ Each of the three SEP criteria had to be scored against international standards by using a 4-point scale, ranging from 1 (world leading/excellent) to 4 (unsatisfactory). The SEP criteria and rating system are described in more detail in Appendix D.

All members of the committee signed a statement of impartiality and confidentiality, to safeguard a transparent and independent assessment process.²

1.3 The research institutes under review

At the request of the board of Maastricht University, UNU-MERIT and ICIS, though both independent units without wide-ranging collaboration, have been reviewed together. The ICIS research program in itself is too small to justify a research assessment on its own.³ UNU-MERIT consists of three sub-units that have been brought under common management, but have never been evaluated together. The review committee agreed that a joint review is justified, given that UNU-MERIT and ICIS cover a lot of common ground in terms of research interests, that they share a strong emphasis on societal relevance and that they intend to intensify their cooperation.

UNU-MERIT

UNU-MERIT is the product of a merger between three institutes: Merit (a unit within the School of Business and Economics (SBE) of Maastricht University), the former UNU-Intech (a research institute belonging to United Nations University), and MGSOG (the Maastricht Graduate School of Governance, part of the Faculty of Humanities and Sciences (FHS) of Maastricht University). Merit and UNU-Intech merged into UNU-MERIT in 2005 and MGSOG was incorporated in 2010. To this day, Merit is part of SBE, the UNU institute of UNU, and MGSOG of FHS. Although they share a mission and management, they each report and provide separate financial accounts to their own faculty/university. Consequently, each staff member of the institute is employed by one of the three units, that each offer different contracts.

Within UNU-MERIT, the three units have separate roles. Merit mainly performs contract research, the UNU institute serves the UN, and MGSOG links research to teaching at the Master level. UNU-MERIT is managed by a director, who reports to UNU, SBE and FHS, and who is supported by an advisory board covering the UNU institute, and an executive board of the Merit foundation covering Merit.

Research is loosely organised around research themes that each have one or more research coordinators. Researchers generally contribute to more than one theme. At the end of 2015, there were seven research themes: i) The Economics of Knowledge and Innovation, ii) Poverty, Public Policy and Inclusive Innovation, iii) Economic Development, Innovation, Governance and Institutions, iv) Sustainable Development, Innovation and Societal Transitions, v) Innovation Systems Indicators and Policy, vi) Migration and Development, and vii) ICT-enabled Innovation and Societal Transformations.

ICIS

ICIS is a relatively small institute, part of FHS within Maastricht University, focusing on sustainable development research and education. The management of ICIS is in the hands of the scientific director, who is supported by the managing director, and reports to FHS.

² In appendix J of the UNU-MERIT and ICIS self-evaluation report, Prof.dr. Daniel Lang is listed as a member of the advisory board of ICIS. It should be noted here that this advisory board has never been instituted. The committee concluded that there was no risk in terms of bias or undue influence. The ICIS management has provided a written statement to confirm this.

³ The SEP requires at least ten research FTE's among its permanent academic staff.

The ICIS research program covers three interrelated knowledge domains: i) sustainable development and sustainability assessment, ii) innovation for sustainable development, and iii) governance for sustainable development. Examples of topics currently being studied are sustainable urban development, societal value creation and transformation, and global partnerships for sustainability certification.

Mission and strategy

UNU-MERIT and ICIS are institutes for research and education in the field of sustainable human development. Main objectives are: i) conducting high-quality scientific research which is relevant for policymaking and society, ii) providing education, mainly at PhD level and Master level, and iii) establishing strong working relations with different societal actors, locally and globally. The research at UNU-MERIT and ICIS is characterised by its empirical nature. There is a particular emphasis on societally relevant, evidence based research, often in close interaction with stakeholders and policy makers.

The combined research program of UNU-MERIT and ICIS covers the broad field of human development and sustainability. The seven plus three research themes of the two institutes have been categorised by the institutes under five main themes:

1. Governance and public policy;
2. Innovation and technological change;
3. Migration;
4. Social protection;
5. Sustainable development.

The identification of these five themes is seen as a basis for further cooperation between the two institutes. The themes aim to capture both academic and societal challenges, and have important interlinkages. The research program is specifically aimed at the needs of policymakers and other stakeholders. This is not only reflected by the fact that governance and public policy is a main theme, but also by the orientation of the entire program at societal relevance and actual use of research results in practice. The strong emphasis on contract research testifies to this particular feature of the program.

The managements of UNU-MERIT and ICIS have identified the following shared strategic priorities for the coming years:

- Exploring stronger cooperation between UNU-MERIT and ICIS: the involvement in a common research review has strengthened the ambition to intensify cooperation between the two institutes.
- Strengthening the joint position of the institutes within Maastricht University, in particular by establishing a common Interfaculty Graduate School for the existing PhD programs. A stronger position within the university should also open up possibilities to generate more direct funding through offering courses to other units within Maastricht University.
- A continuing emphasis on contract research for societal relevance, but also more attention to the acquisition of grants from research councils.

- Strengthening the PhD program, in particular by making admittance procedures more selective, by improving support through providing more courses and by sharper monitoring of progress.
- To appoint more female researchers in senior positions and as professors.

Resources

Over the reporting period, total research staff, including PhD students, has varied between a minimum of 97 and a maximum 113 fte.⁴ The largest category is PhD students, which comprises roughly two-thirds (between 65 and 73 percent) of the research staff. The next largest category is Postdocs, which fluctuates between 20 and 25 percent of the research staff. Senior research staff with long term contracts at the institutes has increased from 7.2 fte in 2010 to 10.9 fte in 2015. The support staff is below 15 percent of the total staff (in both fte and number of people).

UNU-MERIT offers different types of contracts to its staff. Academic staff in the Merit institute has a regular Maastricht University contract within the School of Business and Economics. MGSoG offers a similar contract within the Faculty of Humanities and Sciences. The UNU institute offers an international United Nations University contract. UNU-contracts have a maximum duration of six years. All support staff has a Maastricht University contract.

The funding of the institutes is heavily dependent on contract research.⁵ Total staff funding, excluding PhD students, depends for almost half on contract research (between 40 and 46 percent). The share of direct funding has been increasing steadily over the reporting period from 35 percent to nearly 50 percent. Important sources of direct funding are revenues the institutes receive for offering courses in Master programs and premiums for successfully completed PhD's. Direct funding ensures continuity and stability to the research program. The contribution from grants (funding from the national research council NWO and the European research council ERC) is small, having been only 1 to 6 percent of total funding. Total expenditure has been fairly stable over the assessment period, varying between 9 and 11,5 million euro's annually. Personnel costs have fluctuated between 56 and 68 percent of the total.

At the beginning of the reporting period, MGSoG was merged into UNU-MERIT. At the time, MGSoG was running a large financial deficit. By implementing a tight budgetary policy and saving costs as a result of the merger, MGSoG was able to return to financial surpluses over 2012-2015 and returned from a negative to a zero reserve position in 2016. In the period 2012-2014, UNU-MERIT received a large subsidy from the Ministry of Foreign Affairs (Development budget). Some expenditures related to this subsidy continued after 2014, but since, the file on the subsidy has been closed to the satisfaction of both UNU-MERIT and the ministry. In the year prior to the reporting period, ICIS received seed money from the university board to establish a graduate school (MUST) and Master program. Over the reporting period, ICIS managed to attract more senior staff and to convert some temporary contracts into permanent positions.

⁴ These are fte devoted to research. See Table 1 in appendix C for details.

⁵ See Table 2 in appendix C for details.

1.4 Procedures followed by the committee

The review was conducted on the basis of a self-evaluation document provided by the institutes and a one-day site visit. The committee received the following documentation:

- Self-Evaluation Report Research Program UNU-MERIT and ICIS 2010-2015.
- Appendix to the Self-Evaluation Report, containing: i) Terms of Reference, ii) Conclusion and recommendations previous assessment, iii) Output indicators for evaluation, iv) Narrative relevance to society, v) CV's leading researchers and research coordinators, vi) Overview research projects, vii) Overview PhD programs, viii) Overview PhD projects, ix) List of publications, x) Advisory Boards.
- Standard Evaluation Protocol 2015-2021 – Protocol for Research Assessments in the Netherlands (amended version, 2016).

The self-evaluation report (table 4) lists eight key publications that were considered by the assessment committee.

The assessment committee conducted a site visit on January 10th, 2017. During the visit, the committee interviewed the management of the two institutes, the management of the PhD program, research program coordinators, a selection of researchers, a selection of PhD students and members of the executive board of the Merit foundation.⁶ At the end of the site visit, the committee took time to discuss the written and oral evidence on the research units under review. After the visit, additional evidence was requested on relevant benchmark(s) and on the societal relevance of the research, which was duly provided. The assessments of the committee are based on the documentation provided (before and after the site visit), the key publications, and the interviews. The texts for the committee report were finalised through email exchanges. An approved version of the report was presented to UNU-MERIT and ICIS for factual corrections and comments. The final report was then sent to the board of Maastricht University.

⁶ The program of the site visit is attached as Appendix B.

2 Assessment of UNU-Merit and ICIS

The review committee assesses the research of UNU-MERIT and ICIS as follows:

- Research quality: 2 – very good
- Relevance to society: 1 – world leading / excellent
- Viability: 2 – very good

The ratings and the meanings of the labels should be interpreted as described in the table ‘Explanation of the SEP scores’ (see Appendix D). Thus, regarding i) research quality, ‘the research unit conducts very good, internationally recognised research’, ii) relevance to society, ‘the research unit makes an outstanding contribution to society’, and iii) viability, ‘the research unit is very well equipped for the future’.⁷

The committee emphasises that the scores are only one element in the assessment and should be considered in combination with the qualitative evaluation.

2.1 Research quality

The number of academic publications in refereed journals of the research groups has risen over the assessment period from 59 in 2010 to around 100 since 2013.⁸ The number of refereed articles has thus increased from 0,6 per year per fte engaged in research in 2010 to around 0,9 from 2013 onward, suggesting a substantial rise in productivity. Over the assessment period, the number of book chapters has fluctuated between 28 and 54 without a clear trend. Likewise, the number of books published has varied between 4 and 8 per year. The yearly output of PhD theses is around 22, except for the years 2012 and 2013, when it was only about half.

Academic papers have generally been published in medium to high quality, internationally recognised journals, with a fair share of them having appeared in top journals (e.g., 19 publications out of 530 were in *Research Policy*, 5 in *Strategic Management Journal*, 2 in *PNAS*). The research output is generally well-cited. A citation analysis on the 446 papers included in the Scopus database shows that the relative impact of a UNU-MERIT and ICIS journal publication tends to be well above the average impact of publications in the same journals: it is on average cited 21 to 35 percent more often (depending on the method of calculation). Of these papers, 21 percent was cited more than double the average amount.⁹

In eight selected sub-domains, the institutes have reported their position vis-à-vis the entire field of economics on the basis of data in RePEc.¹⁰ In all eight domains, they score extremely well, putting them e.g. in the fields of ‘innovation economics’, ‘technology and industrial dynamics’ and ‘knowledge management and knowledge economics’ on a par with the National Bureau of Economic Research (NBER), the London School of Economics (LSE), and the Department of Economics of Harvard University. The committee recognises that rankings have their issues and that available data

⁷ It should be noted that the meanings of the SEP scores as given (see Appendix D) are somewhat inconsistent: whereas a score of 1 is generally meant to signify “world leading/ excellent”, it merely says that “the research unit makes an outstanding contribution to society” when applied to ‘relevance to society’.

⁸ See Table 3 in Appendix C.

⁹ See the UNU-MERIT and ICIS self-evaluation report.

¹⁰ Ibidem; see also <http://repec.org/>.

preclude accurate benchmarking, but accepts that given the scant evidence, the conclusion that the institutes score well on research quality is justified.

Benchmarking the institutes against a similar organisation turned out to be difficult. However, it appeared that a reasonable benchmark could be constructed by combining two institutes, the Science Policy Research Unit (SPRU) of the University of Sussex in the United Kingdom and United Nations University World Institute for Development Economics Research (UNU-WIDER) in Helsinki, Finland. SPRU shares a focus with UNU-MERIT on innovation analysis; UNU-WIDER is the largest of the UNU-institutes and focuses on development, economic development in particular. Given that the numbers of staff at UNU-MERIT and ICIS combined and at SPRU are in the same range, it is reassuring that the number of publications (not only refereed) is comparable. Likewise, as far as available data allow to gauge, the publications to staff ratio at UNU-MERIT and ICIS and at UNU-WIDER also seem comparable. Using the RePEc publications database, UNU-MERIT outperforms SPRU in 8 out of 11 thematic fields in which both are active (out of a total of 18 fields that they jointly cover).

The assessment committee was impressed by the fact that, though UNU-MERIT and ICIS are focused largely on contract research for external stakeholders, researchers frequently manage to publish their findings in academic journals. In discussions with the committee, several researchers emphasized that they did not feel that there is a trade-off between societal relevance and academic excellence – rather, they stressed the complementarity. Being engaged in projects with policy makers and other stakeholders helps to identify relevant research questions and inspires new approaches to research challenges.

Despite the applied nature of the research and although the main motivation for many researchers who work at UNU-MERIT is to have a tangible real world impact, academic staff does experience a fairly strong incentive to publish in academic journals. Not only are publication records among the rating criteria used internally (although being able to deliver upon contractual promises and to raise sufficient funding is more decisive), but they are also important when searching for a next job. As UNU-contracts have a maximum duration of six years, researchers on such contracts tend to be eager to use these years to amplify their publication record.

2.2 Relevance to society

Both institutes present societal relevance as a defining characteristic of their work. The aspiration to contribute to advancement of the human condition in less-favoured countries and to a more sustainable world, is at the heart of their research program. The showcase projects listed in the self-assessment report and in the ‘narrative relevance to society’ in the appendix to this report testify to the fact that the societal relevance of the research at UNU-MERIT and ICIS is wide-ranging and very diverse in nature. Among the examples given, there are i) an impact evaluation of a peacebuilding program in Kyrgyzstan, ii) a contribution to the European Innovation Scoreboard (helping policy makers to benchmark their country and improve innovation policies), iii) an evaluation of a shelter program for refugees in Afghanistan, iv) a project estimating the rate of return to social protection instruments in Cambodia and Lesotho, v) a project examining the social and economic effects of global certification partnerships for coffee, palm oil and cocoa from an Indonesian perspective, vi) an evaluation of the Dutch ‘innovation box’ tax incentive for businesses, and vii) a project on ‘urban labs’ as new forms of urban governance in various European cities.

Being part of United Nations University, an academic institution with a mission to conduct research in support of the UN mission and goals (in particular, the UN Sustainable Development Goals), promotes a focus on societal relevance. Already before, but certainly during the assessment period, the research focus of UNU-MERIT has shifted markedly from 'traditional' Merit-topics like measurement and economic analysis of innovation and innovation policy in developed countries toward development related topics. Also, an increasing number of the PhD theses deal with developmental issues. The committee noted with appreciation the focusing of not only UNU-MERIT, but also of the ICIS programme on the Sustainable Development Goals.

The institutes present the large share of their funding from contract research and their large portfolio of projects for external stakeholders as an indicator for societal relevance. Out of a total of 376 commissioned research projects, more than one third was for the European Commission (between 19 and 26 projects annually). One fifth was for the United Nations and other intergovernmental organisations (the number rising from 5 in 2010 to 24 in 2015).¹¹ Dutch national development organisations commissioned another 5 percent of the projects (rising from 2 in 2010 to 6 in 2015) and the Dutch government 9 percent. The total number of projects rose from 48 in 2010 to 86 in 2015.

It should be noted that the assessment committee gained the impression, having read the CV's of the principal researchers and based on the insights during the site visit, that the indicators supplied by the institutes before the visit understate the societal relevance of the research under review. Therefore, the committee requested data on professional publications, publications aimed at the general public, and other research output (as requested by the SEP-format) that had not yet been collected, to be provided after the visit.¹² From the material provided ex ante and ex post and the interviews held with researchers, the committee concludes that a lot of the research within the programs is conducted in close cooperation with stakeholders and policy makers (referred to as 'action research') and that there are all kinds of initiatives to transfer research based knowledge to various professional audiences. Reports have been written and toolkits have been developed. The number of professional publications, aimed at policy makers and other practitioners, exceeds the number of refereed articles. On average two 'Design and Evaluation of Innovation Policies (DEIP) workshops' of one week each have been held annually in developing countries, aimed at policymakers in science, technology and innovation and at participants from the private sector involved in strategic decision-making about technology and innovation. A three-month Migration Management Diploma Program has been developed for both conventional students and migration management practitioners and policy makers coming from a wide range of countries (like Azerbaijan, Liberia, Mongolia, Nepal, Nigeria, Rwanda, Thailand), and working in the area of migration management.

¹¹ This category includes projects for amongst others: the International Labour Organization (ILO), the UN Industrial Development Organization (UNIDO), the International Organization for Migration (IOM), the UN Refugee Agency (UNHCR), UNESCO, UNICEF, and the Asian Development Bank.

¹² The committee considers societal relevance of research to be a broader concept than societal impact, which is much more difficult to demonstrate. Research can be deemed societally relevant if there is a promise of impact.

2.3 PhD programs

UNU-MERIT and ICIS each offer a regular PhD program: the 'Innovation, Economics and Governance for Development' (IEGD) program, and the 'Sustainability Science and Policy' (SSP) program respectively. UNU-MERIT's IEGD program attracts students from a large variety of countries and academic backgrounds. Admission to IEGD is on the basis of the student's CV and a motivation letter including first ideas about the research project. Competition is fierce: currently, out of around 400 applications, some 10 to 15 are admitted annually, of which no more than two from developed countries. The first year consists exclusively out of course work and proposal-writing. On the basis of grades plus the quality of the proposal, a decision is taken on whether the student can proceed. When admitted to the next stage, students are expected to spend three years to write their PhD thesis. Students receive a fellowship from the UNU; they are not employed by the university as AIO's.

ICIS's SSP program admits two students per year on average out of approximately 25 applicants. After being admitted, the PhD student develops a research proposal in close collaboration with the supervisors, which is reviewed by external experts. Well before the end of the first year, a decision is taken on access to the rest of the program. The PhD student also develops an education plan and a supervision plan, to formalise agreements between the student and the supervisors about course work, teaching and other activities, and about supervision.

PhD's are increasingly awarded for theses based upon publishable papers. The requirement for a PhD is a minimum of three papers deemed acceptable for publication in a refereed journal, or a monograph containing at least three publishable chapters.

The PhD students the committee has interviewed showed considerable enthusiasm about the program, in particular about the open relationships between students and staff. Senior staff was described to be easily approachable and to enjoy engaging with students. Students choose their own PhD topics according to their own interests and develop their own project plan, without many directives from the staff. The committee considers this fairly informal and bottom-up practice as an attractive and valuable feature of the program, but also recognises that it carries the risk that not all students get the guidance they need at this stage, which can be seen as one reason for the fact that a substantial number of students don't finish their thesis in the expected timeframe. Between 2007 and 2011, around 20 students were admitted to the program, and in 2008 even more. The share of these students that discontinued their PhD work was fairly high, up to one third. Information on discontinuation of students from the groups that started in 2012 and onwards has not been provided, but it was reported that current admission numbers are lower and selection procedures after the first year have been tightened. Moreover, strengthening the PhD program by improving selection and monitoring was listed as one of the management priorities for the coming period.

The duration of PhD trajectories generally exceeds four years. From the groups that started between 2007 and 2011, 9 out of 112 candidates graduated in year four and 25 in year five (together 30 percent). Among the reasons for these long lead times reported were the diversity in the disciplinary backgrounds and academic skills of the PhD students and the need to do field work, but also the tendency to prioritise quality over time. Generally, longer lead times are not considered a problem, as long as extra time is well spent, e.g. contributing to related research projects or improving papers to aim for better journals. UNU fellowships have a duration of four years. To finance a potential fifth year, students work during earlier years four to six additional hours per week for the university (up to

250 hours per year, e.g. being involved in teaching courses, contributing to contract research projects) and thereby collect the extra means needed.

In addition to the regular programs, UNU-MERIT offers a special program aimed at high-level professionals who want to combine their regular work with doing a PhD: the 'Dual Career Training Program Governance and Policy Analysis' (GPAC²). This program is meant to train policymakers and other stakeholders outside the university. In the first year of the program, candidates follow a basic course program (three two-week workshops) in Maastricht and in later years they come to Maastricht twice a year to present their research and follow workshops on methodology and other relevant issues. The program is tuition based and has an inflow of 12 to 15 students a year. The completion rate of this program, though rising gradually, is still very low: out of 64 candidates that started between 2007 and 2011, 46 discontinued their track (72 percent). The assessment committee believes there is room for improvement, but recognises that completion rates in a dual career program are bound to be substantially lower than in regular programs, and also thinks that such a program is an important channel for transferring academic knowledge and insights to practitioners and thereby adds to societal relevance.

Of the alumni of the IEGD and SSP programs, some 71 percent have found a job in universities and research institutes and 15 percent in a consultancy firm. Only 9 percent ended up in an international organisation, although allegedly finding such a job is an important motivation for many to apply for a PhD position at a UNU institute. Career counselling and career management courses are on offer, but not obligatory. The possibility to temporarily halt a PhD project to do an apprenticeship at another organisation can help students to improve their labour market orientation and might be stimulated more. Another opportunity to strengthen career prospects would be to more involve the worldwide alumni network and bring them into contact with present PhD students.

2.4 Research integrity

To ensure research integrity and deal with ethical issues, UNU-MERIT and ICIS have implemented adequate procedures (e.g., PhD students are instructed with regard to these issues when they enter their program, and they are required to sign a code of conduct; there is a counsellor on scientific integrity; there are 'Days on Research Ethics' at the university level; there are procedures in place to safeguard security and privacy when working with data and storing them). To deal with practical integrity and ethical issues, it helps that all PhD students are supervised by a minimum of two supervisors, at least one of which is a professor from UNU-MERIT or ICIS. Given the nature of the research, though, research integrity and ethical issues are generally no topical or heavily debated issues. The committee notes that the 2016 review report of SBE states that: "The area of research data management has started down the track but faster progress is required on implementation."¹³

2.5 Diversity

UNU-MERIT and ICIS are very successful in attracting a very heterogeneous population of academic staff and PhD students. The research has a strong international orientation and the PhD programs attract students from all over the world. Of students who started a PhD in the IEGD program in the period 2007 to 2011, 60 percent came from outside Europe, with Latin America (18 percent), Asia (16 percent) and sub-Saharan Africa (14 percent) as the largest regional categories, and 56 percent being

¹³ It should be noted, though, that UNU-MERIT was only one of the many units considered in the SBE review and that the SBE review only considered part of the combined program of UNU-MERIT and ICIS.

female. Since, the share of non-European students in admissions has gone up further. The SSP program also attracts PhD students from a worldwide base (e.g., Brazil, China, Ghana, Indonesia).

The present rich cultural and ethnic diversity, especially among PhD students, is an important asset for research organisations in this particular field of sustainable human development. Currently, about two thirds of the senior research staff is Dutch. The institutes aim to increase diversity in research staff in terms of females in senior positions, particularly in full professorships. The assessment committee would like to encourage the institutes, in addition to aiming for more female professors, to recruit globally and to continue increasing cultural and ethnic diversity when hiring senior academic staff.

2.6 Viability

The joint UNU-MERIT and ICIS SWOT analysis highlights important issues to be considered in setting out the course for the future. The ability to combine academic excellence with societal relevance and the multidisciplinary and partly transdisciplinary character of the research are regarded as important strengths, and rightly so. But these also present challenges. The multidisciplinary, applied and empirical nature of the research – often commissioned and financed by external stakeholders – does not always fit easily with the academic and more discipline oriented profile of the university. Ways have to be found to strengthen the position of the UNU-MERIT and ICIS research programs while at the same time reinforcing the connections between these programs and the research programs and graduate schools at SBE and FHS.

The relatively low success rate and long time-to-completion of PhD projects are duly recognised as weaknesses and appropriate steps have been identified to address these. Lead times can be reduced by making admittance procedures more selective and by evaluating more strictly after the first year. It is important to keep in mind, though, that the process of writing an PhD thesis within SBE, based upon a two-year Research Master, followed by a three years PhD track, is not viable for the diverse and global student population that UNU-MERIT and ICIS target.

The financial position of both UNU-MERIT and ICIS seems sufficiently solid. After the incorporation of MGSOG into UNU-MERIT, it has taken a number of years to consolidate its financial situation, but from 2016 onwards MGSOG has positive reserves again. This notwithstanding, a recognised weakness is the small proportion of Dutch (NWO) and European (ERC) research grants in total funding. Given that funding councils at both the national and the European level increasingly proclaim to be willing to fund multidisciplinary research and to take into account societal relevance, increasing this proportion by stepping up efforts seems a viable strategy. Related to this, the current dependence on contract research, mainly for a limited number of commissioning institutions like the European Commission, makes the funding stream uncertain. Competition for EU funds is mounting. This justifies efforts to obtain more direct funding from university sources by increasing involvement in bachelor and master education. Teaching earns funding which includes a 'research mark-up'.

The complex organisational structure of UNU-MERIT was an aspect that struck the review committee as a severe liability, even more so when combined with ICIS. The combination of both institutes reports to two universities (UNU and UM), and within Maastricht university to two faculties (SBE and FHS). Policies vary, funding streams differ, and so do employment contracts (six year international contracts versus and regular Dutch contracts) and financial conditions for PhD students (as UNU fellows or as AIO's). The interviews made clear that the organisational structure is not only a liability,

but also an asset. It creates leeway for the management to be flexible, e.g. in tailoring employment contracts to specific needs and situations. Researchers report that differences in contract types are not an issue that stands in the way of good working relationships, and that the support staff is very agile in dealing with the administrative burden caused by the complications of organisation and funding.

One of the strategic objectives of the managements of UNU-MERIT and ICIS is to join forces to establish an interdepartmental graduate school. All respondents the committee has interviewed (professors, PhD program coordinators, researchers and graduate students) deem this an appealing initiative. The assessment committee strongly supports such an initiative. An independent school would strengthen the position of the institutes vis-à-vis the departments (SBE and FHS) and would help to overcome a lack of scale economies especially in the ICIS graduate program SSP (ICIS withdrew from research school SENSE and established the graduate school MUST, a more sustainability science oriented alternative, which as of yet seems to lack critical mass). A combined graduate school for UNU-MERIT and ICIS would offer students more diverse opportunities to attend courses and to do research. Important challenges for such an interdepartmental graduate school would be a sufficient focus on well-defined research themes, a coherent research program and careful branding; however, the site visit gave clear evidence that these challenges can be sufficiently met. Further cooperation and a full merger may well be an attractive next step.

3 Recommendations

The assessment committee concludes that UNU-MERIT and ICIS are valuable research units within the Maastricht academic landscape that share a number of precious characteristics. They are both driven by a combination of academic curiosity and societal concern. They have a global orientation and a heterogeneous staff and student population. They manage to organise a dynamic research environment that elicits drive, creativity and enthusiasm.

The managements of both institutes appear to be on the right track in addressing recognised weaknesses and strengthening cooperation. Several recommendations on how to strengthen the institutes and their research efforts have been formulated above. These will not be repeated here; rather, the committee would like stress a number of issues that deserve particular attention:

- *Interdepartmental graduate school.* Not only do UNU-MERIT and ICIS share a number of research interests, they can also benefit from each other's methodological expertise (e.g. the strong expertise of ICIS in place based transdisciplinary research and UNU-MERIT's expertise in more classical forms of policy advice). A joint graduate school would be an instrument to expose PhD students, especially those of ICIS, to a wider range of disciplinary and methodological courses. It would increase the visibility of the UNU-MERIT and ICIS research program within UM and UNU. Furthermore the joint graduate school would probably also lead to more formal and informal interactions between researchers of the two institutes. The assessment committee would welcome moves toward a joint graduate school.
- *Organisation.* The organisation of both the institutes as research organisations and the PhD programs thrive on a culture of bottom-up initiatives. PhD students choose their own subject for their thesis and develop their own project proposals. They participate in an open culture where they support each other in their studies. Researchers join theme groups and follow their own strategy in tendering for contracts or funding. The management and support staff succeed in accommodating this loosely organised process organisationally and financially. More cooperation can benefit from further streamlining the organisation and this may facilitate a reduction in overhead. Care should be taken, though, to cherish the openness to self-organisation that can be seen as a unique asset of the institutes.
- *Societal relevance.* Being relevant, practical and applicable is a defining characteristic of the UNU-MERIT and ICIS research programs. Steps should be taken and methods should be developed to increase the visibility of the societal relevance of the research of these programs. It is important to keep an eye on the mutual reinforcement of academic excellence and societal relevance. Care should be taken not to overemphasise academic quality in terms of publication standards (e.g., publishing in A+ journals), at the expense of societal relevance. In so doing, the institutes can also contribute to discussions revolving around the role of science in society and the adequacy of certain quality indicators in academia.
- *Recruitment and funding.* More effort to broaden the funding base by acquiring grants from national and European research councils – including NWO's veni, vidi and vici grants – are needed, not only to reduce dependence on short term funding, but also to create opportunities to explore new research trajectories, to invest in new expertise and to increase variety. This ambition should be taken into account in recruitment processes. These should bring in researchers with complementary skills and interests that can obtain such grants.

Appendix A: Curricula vitae of the committee members

Rolph van der Hoeven is emeritus professor of Employment and Development Economics at the International Institute of Social Studies (ISS), Erasmus University (EUR), the Hague. He is member of the Committee on Development Cooperation of the Dutch Government and of several other Dutch development organizations. Earlier he was Director Policy Coherence and Manager of the Technical Secretariat of the World Commission on the Social Dimension of Globalization at ILO Geneva. Other positions included Chief Economist of UNICEF in New York and policy analyst for the ILO in Ethiopia and Zambia. His work concentrates on issues of employment, inequality and economic reform, and focussing amongst others on problems related to basic needs, structural adjustment, and globalization and poverty alleviation on which he has published numerous books, book chapters and journal articles.

Guido Bünstorf is professor of Economics and executive vice director of the International Centre for Higher Education Research (INCHER-Kassel) at the University of Kassel. In addition he is a visiting professor at the Institute of Innovation and Entrepreneurship, University of Gothenburg, and research professor at the Leibniz Institute of Economic Research (Halle). Bünstorf studied economics and political science in Freiburg and at the University of Massachusetts (Amherst) and obtained his doctoral degree in economics from Friedrich Schiller University Jena. Prior to joining the University of Kassel he was a research group leader at the Max Planck Institute of Economics (Jena). He had visiting positions at Carnegie Mellon University, the University of California (Berkeley) and Aalborg University. Bünstorf's research focuses on industrial dynamics, innovation, entrepreneurship and the economics of science. He is associate editor of *Industrial and Corporate Change*.

Godfried Engbersen is professor of Sociology at the Erasmus University of Rotterdam, the Netherlands. His current research activities focus on irregular migration, the relationship between restrictive migration regimes and crime, local and transnational citizenship as well as liquid migration from Central and Eastern Europe. Since 1 September 2014 Engbersen is appointed as member of the Dutch Scientific Council for Government Policy (WRR). He has worked at the University of Leiden (1994-1990) and Amsterdam (1989-1990). Between 1993 and 1998 he has been professor of welfare and social inequality at the Utrecht University. Moreover, Engbersen is the Dutch correspondent for the continuous Reporting System on Migration (SOPEMI) of OECD and elected member of the Royal Netherlands Academy of Sciences (KNAW) (since 2007).

Daniel Lang is professor of Transdisciplinary Research in Sustainable Development at the department of Sustainability Sciences at Leuphana University in Lüneburg. His research activities concentrate on the development of the theoretical, methodological and procedural foundations of Sustainability Sciences. In particular, he deals with interdisciplinary cooperation and mutual learning processes between different scientific disciplines, as well as the interaction between sciences and society. The purpose of these processes is to initiate robust solutions to the urgent sustainability challenges of our times.

Appendix B: Program of the site visit

Location: UNU-MERIT, Boschstraat 24 6211 AX Maastricht

Time		Participants UNU-MERIT and ICIS	Coordinator
9.00 – 9.45	Private Kick-off meeting Evaluation Committee		
10.00 – 11.00	Meeting with Program Management	Directors: Bart Verspagen and Ron Cörvers Deans: Bernadette Jansma and Philip Vergauwen Support: Ermo Daniels, Wilma Coenegrachts, Susan Roggen, Marc Vleugels and Anja van Bogaert	Ron Cörvers
11.15 – 12.00	Meeting with PhD Program Management	Robin Cowan, Tatiana Skripka, Mindel van de Laar, Pim Martens	Tatiana Skripka
12.15 – 13.00	Meeting with Researchers	Astrid Offermans, Marc Dijk, Joop de Kraker, Michaela Vanore, Nyasha Tirivayi, Sonila Tomini, Neil Foster-McGregor	Neil Foster
13.00 – 13.45	Lunch (at UNU-MERIT premises)		
13.45 – 14.30	Meeting with PhD Students	Ayla Bonfiglio, Ibrahima Kaba, Bart Kleine Deters, Fernando Vargas Cuevas, Tatenda Zinyemba, Julia Backhaus, Bram Oosterbroek	Fernando Vargas Cuevas
14.45 – 15.30	Meeting with Advisory Boards	Franz Palm, Luc Soete	Luc Soete
15.45 – 16.30	Meeting with Professors and Program Coordinators	René Kemp, Pieter Glasbergen, Melissa Siegel, Franziska Gassmann, Theo Azomahou, Shyama Ramani, Eddy Szirmai	Franziska Gassmann
16.30 – 17.15	Private Closure meeting Evaluation Committee		
17.30 – 18.00	Preliminary findings review committee (plenary)	All	

Appendix C: Quantitative data

Table 1: Research staff (SEP table D3a)

	2010		2011		2012		2013		2014		2015	
	#	fte										
Scientific Staff	11.0	7.2	11.1	7.4	13.2	7.9	13.3	8.2	15.3	10.1	16.6	10.9
Postdocs	32.2	26.2	31.1	23.7	28.4	20.7	25.1	20.7	27.7	24.8	31.5	27.4
PhD students	80.4	64.3	79.8	65.9	95.7	75.8	100.0	79.1	99.2	78.5	93.0	72.4
Total research staff	123.6	97.6	122.0	96.9	137.3	104.4	138.4	108.0	142.3	113.4	141.1	110.7
Support staff	12.8	11.2	12.6	11.0	18.0	13.7	19.4	14.6	20.6	15.1	21.9	15.5
Visiting researchers												
Total staff	136.4	108.9	134.5	108.9	155.2	119.6	157.8	123.2	162.7	127.9	162.9	130.3

Notes:

- Scientific Staff includes Professor (HL), Associated Professor (UHD) and Assistant Professor (UD).
- Data on visiting researchers are not available.
- Postdocs includes Researchers (Onderzoekers), including senior.
- Columns labeled # indicate the number of fte employed in the category.
- Columns labeled fte indicate standardized research time spent in fte.
- Data on visiting researchers are not available
- The following fractions were used to convert the # columns to the fte columns:
 - 0.5 for Professor (HL), Associated Professor (UHD) and Assistant Professor (UD), except for UNU-MERIT and Merit, where the fraction is 0.9 (because these institutes do not have any teaching duties for their staff).
 - 0.9 for Postdocs (Researchers) at UNU-MERIT, and 0.75 at ICIS.
 - 0.8 for PhD students.
 - 0.5 for support staff, except for UNU-MERIT and Merit, where 1.0 was used.

Table 2: Funding (SEP table D3c)

Funding:	2010		2011		2012		2013		2014		2015	
	fte	%	fte	%	fte	%	fte	%	fte	%	fte	%
Direct funding	15.6	35	15.9	38	19.7	47	21.5	49	25.1	50	26.4	49
Research grants	2.9	6	2.4	6	2.1	5	0.4	1	0.7	1	3.0	6
Contract research	20.5	46	18.4	44	17.1	40	18.3	42	21.8	44	21.8	41
Other	5.5	12	5.3	13	3.3	8	3.4	8	2.3	5	2.6	5
Total funding	44.5	100.0	42.0	100.0	42.2	100.0	43.6	100.0	49.9	100.0	53.8	100.0
Expenditure:	K€	%	K€	%	K€	%	K€	%	K€	%	K€	%
Personnel costs	7,021	61	6,588	60	5,226	56	6,301	68	5,889	58	6,792	63
Other costs	4,501	39	4,351	40	4,044	44	2,943	32	4,346	42	3,911	37
Total expenditure	11,521	100	10,939	100	9,269	100	9,244	100	10,234	100	10,704	100

Notes:

- Fte data in the funding part of the table does not include PhD students.
- Costs include teaching part of the institutes.

Table 3: Main categories of research output (SEP table D3b)

	2010	2011	2012	2013	2014	2015	Total
Refereed articles	59	76	92	101	103	99	530
Non-refereed articles	5	6	3	4	8	6	32
Books	6	4	5	6	8	5	34
Book chapters	48	28	35	54	42	30	237
PhD theses	22	18	14	10	22	25	111
Conference papers	55	37	42	45	51	62	292
Professional publications	112	110	120	124	145	129	740
Publications aimed at the general public	1	2	2	3	6	6	20
Seminars / lectures	24	26	19	34	37	58	198
Other research output	30	39	27	33	26	71	226
Total	362	346	359	414	448	491	2420

Table 4: PhD candidates (SEP table D3d)

<i>IEGD and SSP programs</i>				Graduated in																	
		Enrolment			Year 4		Year 5		Year 6		Year 7		Not yet finished		Discontinued at 12 months		Discontinued later				
Starting year	M	F	Tot	#	%	#	%	#	%	#	%	#	%	#	%	#	%				
T-8	2007	8	11	19	6	32	2	11	3	16	3	16	1	5	1	5	3	16			
T-7	2008	15	13	28	2	7	2	7	4	14	3	11	7	25	7	25	3	11			
T-6	2009	8	14	22	1	5	9	41	6	27	2	9	2	9	1	5	1	5			
T-5	2010	12	10	22	0	0	7	32	3	14			6	27	4	18	2	9			
T-4	2011	11	10	21	0	0	5	24					10	48	3	14	3	14			
<i>GPAC² program</i>				Graduated in																	
		Enrolment			Year 4		Year 5		Year 6		Year 7		Not yet finished		Discontinued						
Starting year	M	F	Tot	#	%	#	%	#	%	#	%	#	%	#	%	#	%				
T-8	2007	11	3	14	2	14	0	0	1	7	0	0	0	0	11	79					
T-7	2008	6	5	11	0	0	1	9	0	0	0	0	0	0	10	91					
T-6	2009	5	9	14	1	7	1	7	0	0	1	7	0	0	11	79					
T-5	2010	10	7	17	0	0	3	18	1	6			2	12	11	65					
T-4	2011	5	3	8	0	0	2	25					3	38	3	38					

Appendix D: Explanation of the SEP 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