

Decision of the Accreditation Commission of AQAS

on the Master programme

“Global Change: Ecosystem Science and Policy” (M.Sc.) (JP)

offered by University of Gießen and University College Dublin

Based on the report of the expert panel and the discussion of the Accreditation Commission in its 68th meeting on 28/29th August 2017, the Accreditation Commission decides:

1. The Master programme **“Global Change: Ecosystem Science and Policy” (Master of Science)** provided by **the Justus-Liebig-University Gießen and the University College Dublin** is **accredited with conditions** according to the „Rules of the Accreditation Council for the Accreditation of Study Programmes and for System Accreditation” adopted on 20.02.2013. The accreditation commission is convinced that the findings stated by the experts in the report can be addressed within 9 months.

The study programme generally complies with the requirements defined by the German Accreditation Council, the structural guidelines by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (Kultusministerkonferenz – KMK), the Länder-specific requirements for the accreditation of Bachelor and Master programmes as well as the requirements of the Qualifications Framework for German Higher Education Qualifications in their current version.

2. The conditions have to be fulfilled and their fulfilment reported to AQAS until 31st May 2018.
3. The Master programme is a consecutive programme.
4. The accreditation is given for the period of seven years and is **valid until 30th of September 2024.**

Conditions:

1. It has to be demonstrated that core modules related to Theme (2) cover the theoretical and methodological aspects of scientific facts/evidence in policy making and political communication in a systematic and comprehensive manner. If necessary, the required adjustments have to be implemented.

<p>The conditions were fulfilled on time. The Accreditation Commission confirms this with its decision of 27./28.05.2019.</p>

The following **recommendations** are given for the further improvement of the programme:

1. To increase sustainability of the programme further resources should be provided at central level by Justus Liebig University Gießen and University College Dublin for marketing and coordination.
2. Relevant senior lecturers/full professors and chair groups from the field of Policy and Communication should also be involved in the programme at both universities.

3. The responsible staff for each module should be updated continuously in the module descriptions.

With regard to the reasons for this decision, the Accreditation Commission refers to the attached assessment report.

Experts' Report

on the degree programme:

“Global Change: Ecosystem Science and Policy” (M.Sc.)

offered by University of Gießen and University College Dublin

Date of site visit: 26./27.06.2017

Expert group:

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Preamble

The accreditation procedure covers Bachelor and Master programmes at state (public) or state (publicly) -recognised universities.

All Bachelor and Master programmes must be accredited in Germany by law, as laid down in the statutes of the Standing Conference of the Ministers of Education and Cultural Affairs of the Federal States (Länder) in the Federal Republic of Germany (Kultusministerkonferenz).

Each federal state implements these rules and regulations in accordance with their own respective Higher Education law.

The evaluation of the study programme was carried out in accordance with the “Rules for the Accreditation of Study Programmes and for System Accreditation” (version of 20th February 2013) taking into account the specific rules and regulations for Joint Programmes.

I. Assessment procedure

The University of Gießen requests the accreditation of the study programme Global Change: Ecosystem Science and Policy which is carried out jointly in cooperation with the University College Dublin. The programme leads to the joint award of the Master of Science of both institutions.

This is the first re-accreditation of the programme.

The accreditation procedure was initialised by AQAS on 20/21 February 2017 by its Accreditation Commission. The on-site visit in Gießen took place on 26/27 June 2017 by the above mentioned expert group. As part of this visit, separate talks took place with the University’s senior management team, teaching staff and students as well as representatives of the University College of Dublin.

The following report of the expert group is based on the written application documents of the University and the results of the on-site visit. The descriptive parts of the evaluation report, in particular, refer to the application documents. The special rules and regulations for Joint Programmes of the German Accreditation Council were considered. Additionally, in light of the different workload assumptions at both partner institutions, the German Accreditation Council granted an exception of rule 1.5.2 of the “Rules for the Accreditation of Study Programmes and for System Accreditation”.

II. Assessment of the study programme

1. General Information

The Master programme Global Change: Ecosystem Science and Policy is jointly provided by the Justus Liebig University Gießen (JLU) and the University College Dublin (UCD). At Gießen University it is located in the Faculty of Biology & Chemistry, at University College Dublin in the School of Biology and Environmental Science. The programme combines the existing international profiles of Justus Liebig University, Gießen, Germany, and University College Dublin, Ireland. It integrates major research groups which bring together complementary, multi-disciplinary expertise including ecosystem experiments and field-scale study sites.

JLU outlines that the Master programme Global Change: Ecosystem Science and Policy today forms an important pillar of the Life Science portfolio which is a priority area at JLU. Global change is one of the key topics which is mirrored in the support of the university for research and is also reflected in the link between research and teaching in this area. At JLU large scale pro-

programmes in the area of global climate change are directly associated with the teaching programmes and in particular the Global Change Master programme.

UCD on the Irish side of the programme outlines that the Global Change Master programme fits particularly well in its overall international policy. In addition, the UCD School of Biology and Environmental Science (SBES) explains that it has one of the largest and widest-ranging groups of international scientists in Ireland and this Master Programme fits into the International – Environmental M.Sc. group which is currently expanding as part of UCD strategy to attract international students.

Both universities have regulations regarding equal opportunities for staff and students and the respective regulations are described to also be applied in this programme.

Assessment

All required formal aspects of cooperation between the two institutions as well as operational regulations are defined and agreed upon in a cooperation agreement that is signed by both sides.

JLU is a certified family-friendly university. There are a number of facilities e.g. parent-child room which supports the needs of students and staff with children. Besides this, the university strives to give advice and individual support to students in special circumstances or with disabilities. Due to the small number of students in the master programme the guidance of the students covers well the individual needs of students. The contact between the staff involved in coordinating the programme and the students is obviously quite close so that students feel that they are well guided even for everyday issues. It became obvious to the group of experts that currently a disproportionately high number of female students is enrolled.

2. Aims and objectives of the study programme

The programme aims at providing graduate students with scientific methods to study the effects of environmental change on ecosystems and to transfer their newly acquired knowledge to policy-relevant information. In addition, students are supposed to improve methodological and social skills that enable them to be successful in their profession. The philosophy of 'policy-relevant evidence' is described to be the core of the Master programme which is equally suitable for graduates aiming at a scientific career as well as those aiming to contribute to evidence-based environmental policy making.

The focus of the programme is to equip the graduates with the following three generic skill sets: (1) Global Change Science, (2) Policy and Communication, (3) Data Management, Analysis & Reporting.

According to the universities, having completed the Master programme students are able to:

- understand the ecosystem science underpinning the knowledge of global environmental change;
- perform environmental work and research in a confident manner by applying relevant tools in data collection, management, analysis and reporting;
- communicate policy-relevant evidence to diverse target audiences in an unambiguous way;
- understand and promote the development of policy in terms of adaptation and mitigations for natural and managed ecosystems, thereby supporting sustainable livelihoods;
- use the acquired multi-disciplinary skills to understand and communicate the complex interactions of society and the environment;
- inform themselves about latest global change issues and continue their training in the most up-to-date research methods.

Furthermore, a key element of this international study programme is supposed to be a learning environment which combines academic and professional approaches at a cross-cultural setting.

In addition to giving the graduates strong scientific training in the interpretation of ecosystem science, this programme also wants to provide them with skills necessary to participate in the policy making process through the learning of soft skills such as critical thinking, self-management and communication.

Applicants should possess a Bachelor's degree (or equivalent) of no less than 180 credits and the ECTS grade B or higher. Accepted degrees are biology, natural or environmental sciences or agriculture. The Programme Board can admit applicants with other degrees but reserves the right to impose conditions for admission. As the programme language is English applicants need to provide evidence of their English language skills. There are additional criteria in the event that the number of acceptable applicants exceeds the number of available places. However, the universities describe that these mechanisms have not been used so far.

Since its implementation, the partners have assessed the programme as successful in training graduates which are able to work in interdisciplinary projects in order to answer global change issues. The total number of applications has increased over the years from 4 (2012) to 10 (2016). Both faculties are actively working at increasing the visibility of the programme not only in Ireland and Germany but worldwide through different activities.

Assessment

One of the strongholds of this international study programme clearly is the combination of academic and practical approaches. The students undergo a strong scientific training in understanding the impact of "global change" on ecosystems and additionally they are provided with skills necessary to participate in the policy making process by learning soft skills, self-management and communication in a scientific as well as in a professional environment. The transition of students from one university to the other is a good opportunity to strengthen the development of the personality of the graduates. Hence the concept of the programme is already beneficial for the personal development of students. It successfully aims to build an academic qualification at Master's level.

The introduced methods and teaching approaches are appropriate and the students have the opportunity to develop their personality through the learning of soft skills, self-management and communication in a scientific as well as in a professional environment. Outcomes cover subject specific as well as non subject specific competencies. Students have many opportunities to train these skills by working in teams and by presenting their work in oral presentations. Besides this, they have the opportunity to select online modules which offer different topics and which strengthen their self-management. Societal engagement of students is also fostered by updating students via Facebook on current political issues that are connected to the field of study. A number of excursions broaden the perspectives on global change issues (e.g. organic farming, fairs).

Especially for foreign and Irish students the transition from one university to another is a good opportunity to experience different learning cultures and to learn the German language. The same is true for German students starting at UCD except that they deepen the English language. Due to the different learning cultures at the two institutions it seems that adaptation to the different style can be challenging for students. However, this seems unavoidable to the experts as it is part of the experience in an international programme.

The application for and enrolment in the programme are described to be transparent and easily manageable by students. Experts share the impression of transparent and well defined requirements and mechanisms. A flyer on the website of JLU explains the application procedure. An online application is possible and student success speaks for the fitness for purpose of the required intake qualifications.

Looking at the strategic level it became obvious that the marketing of the programme itself could and should be improved. The number of applicants and consequently the number of intake is rather small. Most students heard about the programme by word of mouth, or by intensively searching the internet. From the panels point of view this issue, however, points not to the programme level but could only be resolved with an increased international visibility requiring efforts at the level of the University. The experts positively recognised that the international office of JLU is part of such activities, even though these are obviously still at an early stage.

3. Quality of the Curriculum

The structure of the programme does not follow the traditional German system due to its nature as a Joint Programme. It can be completed within sixteen months without the usual breaks between semesters. The programme starts in September and finishes in December the following year. Students earn 120 credits. One credit is worth 20 hours of workload in Ireland and 30 hours of workload in Germany. Depending on where the students choose to spend the last semester the total amount of the workload is either 2.800 hours (last semester in Ireland) or 3.100 hours (last semester in Germany).

The first two trimesters equal 55 credits (September to March), start at UCD in Ireland and include 2 months of external work experience (20 credits). Students can choose whether they want to do their work experience in Germany or in Ireland. Students then transfer to JLU in Gießen where they acquire 35 credits between April and August. For the last semester students may choose where they want to do their research project and write their Master Thesis (30 credits): in Gießen or Dublin.

The curriculum consists of 14 modules, 12 of which are core modules and two are optional. For the optional modules, each institution provides a list of suitable modules to choose from.

Because of the general positive feedback received during the first five years, the partners explain that no major modifications of the programme's structure and content were made or are envisaged in the framework of the re-accreditation process. Some changes have already been implemented over the last years and further minor changes include:

- Creation of a new JLU core module "Global Change: Modelling and Advanced Techniques" by integrating the modules "Ecosystem and Model development" and "Global Change Ecology";
- Creation of a new JLU core module on introduction in scientific work and thesis preparation named "Research in Ecology" to address students' feedback for support to prepare their Master Thesis (proposal writing, develop research questions and research design etc.);
- Providing of a new JLU optional module "Team work" which offers the opportunity to work in Biology research groups on a topic chosen;
- Providing of a newly designed JLU optional module "Methods in Global Change Research" as a field exercise.

The vast majority of modules have a workload of 5 credits or higher with few exceptions that are explained by the universities as part of the Self Evaluation Report.

Assessment

The mission of the programme – to train graduates "in scientific methods to study the effects of environmental change on ecosystems and to transfer the gained knowledge to policy-relevant information" based on a "philosophy of policy-relevant evidence" – is continuing to be of great scientific and political relevance and actuality. It fits neatly into JLU's development plan with the

guiding concept of “Translating Science”, making the programme a small, but relevant lighthouse project to JLU’s presidency.

The three generic skill sets – Theme (1) Global Change Science, Theme (2) Policy and Communication, and Theme (3) Data Management, Analysis & Reporting – with which the programme aims to equip its graduates, are logically derived from the mission of the programme. At the same time, these three generic skill sets are also clearly profiling the programme curriculum.

The achievement of the learning outcomes is plausible to the panel of experts and the development of the curriculum since the first accreditation clearly helped strengthening the programme also on the outcome level. Using a good combination of different and appropriate teaching as well as assessment methods the Master Level clearly is achieved and the required mobility – which is an essential part of the concept of the programme – is well integrated as the curriculum is shared between both institutions. Generally, there is one exam per module while paying respect to different assessment cultures at JLU and UCD. A small number of modules is smaller than 5 CP which could be justified successfully already in the documentation.

The list of core modules as described in the handbook in principle fits very well to the three themes. However, whereas particularly Theme (1) Global Change Science but also Theme (3) Data Management, Analysis & Reporting seem to be very well covered through core modules it remained unclear to what extent the contents of the core modules related to Theme (2) Policy and Communication are suited to fulfil the epistemological claim of the programme. Out of the descriptions in the module handbook it can be questioned whether the core-modules ‘Science and Policy’, ‘Environmental Law and Policy’, ‘Policy Consultancy’ and ‘Resource Economics and Environmental Management’ really provide the necessary overview, resp. insights into theories and methodologies on the role of scientific evidence in policy making and communication with regards to Global Change. The on-site visit did also not provide more clarity on this. E.g., it remained unclear what the links are between JLU core module “Policy Consultancy” and JLU optional module “Political Consulting – Environmental Policy and Development Cooperation”, or why the UCD core module “Environmental Law and Policy” zooms in on legal aspects whereas the field of political communication is seemingly not taken up at all by one of the modules. From the expert’s point of view, in order to strengthen the curriculum the programme should therefore demonstrate that core modules related to Theme (2) cover the theoretical and methodological aspects of scientific facts/evidence in policy making and political communication in a systematic and comprehensive manner, supplemented consistently by related elective modules. This includes that modules related to Theme (2) relate in their range to Global Change issues and are not restricted to e.g. environmental policy issues in certain regions. If at current stage this cannot be demonstrated, the required adjustments should be implemented. In this context the universities should also reassure that objectives and content of the module “Policy Consultancy” at JLU in the summer semester are clear and in line with the overall objectives of the programme, at the same time providing students with orientation to allow for preparing a Research Project-Thesis also related to Theme (2) **(Finding 1)**.

In addition, the commitment and ownership of senior researchers from relevant chair groups in the fields of political and communication sciences is obviously missing at both universities. If done systematically and in concise manner, the invitation of practitioners as external lecturers can supplement the systematic training on academic level in these fields, but not replace it.

One obvious way to reach a more systematic and comprehensive coverage of Theme (2) subjects could be the participation of relevant senior lecturers/full professors and chair groups at both universities related to this theme. When looking at the staff portfolio involved in the programme the absence of these professors/senior lecturers easily becomes evident. However, while the expert panel believes that the involvement of these staff resources would be an obvious way to address

this finding, at the same time it accepts that there might be other ways as well. Consequently the involvement of these positions seems recommendable while not mandatory (**Finding 4**).

While providing a complete documentation of the curriculum it became obvious that listings of modules in the self-report and the module handbook to a limited extent are obviously not up to date and partially contradictory. Some of the teaching personnel listed in the documentation were unknown even to the students who had just passed the respective module (**Finding 2**).

Looking at content level and recognising the limitations resulting from the length of the Master programme the experts believe it to be unfortunate that the topic of forest ecosystems and long term-adaptability and adaptation is not well covered in the curriculum. It is encouraged to consider this topic in the future development of the programme.

Finally, it should be positively mentioned that the curricular integration between the two institutions generally works well and the specifics resulting from the two different education systems that are part of this programme are well embedded and managed. The different workload calculations in Dublin and Gießen – leading to a comparably quicker graduation while reaching the required number of CP – is set up appropriately and in practice well operationalized.

4. Feasibility of the programme

A Programme Board including representatives of both institutions is responsible for the academic management of the programme, a joint programme examination board determines recommendations to the respective Academic Council. The Programme Board is responsible for the quality assurance processes and dedicates one meeting each year to the review of the programme.

Each of the institutions has a number of means for the orientation, guidance and counselling of students on different organisational levels. There are orientation weeks at both institutions as well as individual counselling and provisions for the information of international students. Programme coordinators make sure that the students of the programme get to know each other in the first week. The universities describe that the relevant information is presented on the institutions' and the programme's websites.

The study schedule including workload, timetable of modules, work experience and research thesis as well as examination format are explained to be designed so that a student can complete the degree programme in the required time. Teaching modules have been selected from both institutions with the intention to match and complement each other (e.g. Global Change Ecology Basics (UCD) and Global Change Ecology – advanced methods (JLU) etc.). Each institution is responsible for its own modules. However, the common M.Sc. Global Change Working Group oversees the entire programme and makes recommendations towards the inclusion of modules, and assessment and is responsible to avoid an overlap.

The programme is modularised. Most of the modules are also part of other programmes and the experience of the past years was also used to re-calculate the workload. Qualitative data from regular student questionnaires (mid-term and end of programme) over the last four years have been made available and following the explanations of the universities have demonstrated that the students are satisfied with the workload in terms of total time and balance between institutions.

In the study programme, a variety of teaching and learning forms are provided. Most modules contain several forms of learning modes and approaches. The basic modes of teaching are lectures. However, this is often interwoven with practical classes where students learn how to apply the theoretical aspect in the respective study field (e.g. theoretical aspects of Global Change are emphasised by practical classes at the respective research sites). Thus, modules often start with a sequence of lectures followed by targeted exercises (including field trips).

The course of studies is characterized by exercises which are typically offered for small groups of max. four students. Apart from traditional field practicals also computer-aided practicals are an integral part of the teaching. The maximum capacity of modules is typically 16 students. The award of credits is described throughout the different semesters students spend in Ireland and Germany. Work placement is included in the award of credits. There are various examination types used in the programme, e.g. short class presentation, essay or report, simulation exercise, group work projects, etc.

All but one student completed the programme on time and displayed good to very good results.

Assessment

The responsibilities for the study programme are clearly regulated. Content and organization of the coursework are well aligned with the objectives of the modules. The students receive a schedule in the beginning of the semester which is rarely changed afterwards. If it is, the students are informed right away and presented with an alternative. The module handbook(s) are available on the programme's website as well as linked from the universities homepages. A timely overlap between the different modules could not be identified by the experts, neither at UCD nor at JLU. If there is any complication with overlapping lecture times, the coordination staff resolves the individual case.

Information and orientation is offered in different ways. There is a welcome event at UCD and there are also advisors on all matters concerning the specifics of the interdisciplinary programme. Especially the coordinators of the programme are involved in giving advice and distributing any information required. UCD as well as JLU also offer information for disabled students or students who are studying under special conditions. Students with children receive information and help; students with disabilities can receive compensation measures in exams or personal advice.

Recognizing that all but one student completed the programme on time, the workload of the programme as well as the workload of the different modules seems to fit the expectations though the perceived intensity is different between UCD and JLU. At UCD there is a stronger emphasis on exams when it comes to assessment. This results in a perceived heavier workload at UCD than at JLU. At JLU the assessments are more diverse. Although this situation can be attributed to the different systems in Ireland and Germany, on the long run this could be balanced more effectively. The module 'work placement' is given 20 CP which seems adequate. The recognition of study achievements or work experience is decided in the individual case according to the university's regulations for recognition which are in line with the Lisbon recognition convention.

Especially JLU prepares incoming students well for their semester in Gießen and provides them a lot of information including accommodation. The programme managers are very engaged with keeping their students informed and providing as much support as they can. Students reported that finding an apartment in Dublin is difficult and in the beginning hinders the access to study, however, yet a solution could always be found to solve each individual case.

Examinations as well as examination periods are accurate. Although different exam types are already in place and are generally appropriate, the weight of the different examinations that are generally possible in the modules might seem debateable, however this seems to reflect the different teaching and assessment cultures that are part of this programme. The UCD and JLU homepages publish admission criteria, available modules and other documents though the JLU homepage lacks more specific information about the programme. The module handbook is published on both university homepages and thus is accessible for potential students. The examination regulation has been reviewed using legal expertise and is published in its most up to date version.

Decisions concerning the distribution of credit points as well as examination standards and criteria are being made by the working group committee which actively meets more than twice a year. To

formalise the decisions of the board the official examination board takes the recommendations and finalises them. Experts assess this practice to be appropriate.

5. Employability

Both universities describe that graduates are able to gain employment in a wide range of organisations in the environmental field, be it as political advisor, scientific analyst or researcher. The work placement enhances the employability of the graduates and the programme board sees the establishment of relevant links with institutions and industry as a critical task. The documentation provided by JLU outlines that student's activities pre-, during and post-internship allow a wide range of transferable skills to be developed, thus strengthening the concerns of employability of the programme. In UCD, a Programme Internship Manager is dedicated to helping the students securing a work placement and helping them with their applications, CVs, cover letters as well as giving them mock interviews and advice on work ethics.

The International Office of UCD has conducted a study showing that Master programmes in environmental studies are attractive to an international clientele. To promote employability and to strengthen links to the relevant sector of the labour market the programme will allow students to communicate with members of various institutions. In addition, the module "Policy Consultancy" is taught by external consultants and politicians.

Assessment

The programme embodies a number of aspects that increases the employability of the participating students.

The curriculum content (taught and research modules) comprises a broad range of subjects from the scientific research field with relevant and complementary subjects addressing the policy, legal and 'current environmental issues' aspects. This provides a strong scientific base upon which to build the applied aspects, and how to communicate 'the science' in non-technical and relevant ways. Most of the modules incorporate some aspect of communication, which enable the students to become familiar with the necessary language to ensure messages are relevant, accessible and appropriate to the targeted audience. The expert group has identified a number of ways to further enhance the programme in the areas of policy and communications (detailed above) and these should further strengthen the offering for students, and hence employability.

The integration of the work experience module appears to be successful in its development and co-ordination. This part of the programme is likely to improve the employability of students in comparison to other programmes, however the range of 'host employers' could be enhanced by activating the international networks of the full complement of researchers and lecturers (UCD and JLU) involved in delivering the programme.

Market research in this area would allow for the programme to be further developed to the needs of employers, to assess first of all the benefits (to employers) of engaging students from the programme to date (during work experience and in further employment after graduation if that happens) while also identifying additional skills that could be incorporated to complement the existing programme.

In terms of logistics and support, as student numbers increase, it is highlighted that there will be a requirement for additional resources to track the 'work diaries' and timesheets of students involved.

6. Resources

The programme's maximum intake of students is 20 but the actual numbers differ from 4 to 10. Students can enrol each September and will start the programme at UCD. There is a student fee that is different for EU students and non-EU students.

The main teaching staff of the programme belongs to the permanent staff of the universities and is comprised of 15 academics, of which 13 are professors with the two others holding a PhD. Additional teaching staff includes 8 external lecturers for specialised fields of teaching where external insights create an added value for the teaching process. The full profile of the staff is available in the lecturer handbook.

With the exception of one module all other modules are used in other degree programmes as well so that no extra teaching load needs to be covered.

Both institutions regard their laboratory facilities as sufficiently equipped to grant good working conditions for the students.

Both universities offer a range of opportunities to further qualify their teaching staff. While UCD offer their own courses, JLU is part of a network of higher education institutions that provides a programme of initial and advanced training courses.

Assessment

Currently, the qualitative and quantitative capacities regarding staff and equipment are appropriate for the success of the programme. Training options are available for academic staff members. It became clear that the coordination and operational functioning of the overall programme is very much dependent on the personal engagement of a few people. Central positions are obviously the head of the degree programme (JLU) and the programme director (UCD). Both are supported at JLU by the course programme coordinator, who next to her coordinating activities is obviously also responsible for coordinating the module "Policy Consultancy".

There seems to be a clear commitment to and strong support for the programme from the Dean of the responsible Faculty 08. Furthermore, professors from the Faculty 08 (Biology and Chemistry) and Faculty 07 (Geography) provide collegial support and share ownership of the programme. Without any negative connotation to it, it should be recognized that the administrative/executive support from UCD to the programme and the programme director became less clear from the information available. This could be related to the comparably low number of students and the income generated by their student fees.

Coordination and operational management of the programme so far have not been perceived as problematic neither by the responsible persons nor by the enrolled students. However, this might be also a result of the relatively low number of around six registered students per cohort. Both presidencies of JLU as well as UCD have clearly indicated the necessity to increase student intake to improve the programme substantially. In this context, it seems at least questionable whether the actual management structure could handle more than the actual number of students, particularly if student recruitment/marketing should also fall under the responsibility of the programme staff. The experts share the perception that an increased number of students will require different methods of coordination/management and recognize that the required staff potential is available at the involved institutions.

At the same time, the strong dependence on the personal engagement of the programme director (UCD), and to a lesser degree on the head of programme (JLU), bears the risk of discontinuities of the programme, e.g. in case of staff change or a reduced commitment from UCD due to low income generation.

In order to ensure sustainability of the programme it seems therefore recommendable that the presidency of JLU provides means – e.g. within its internationalisation strategy 2016-2026 – to mirror the position of the UCD programme director at JLU. Such a JLU programme director position would not only back up the efforts and engagement of the UCD programme director but could also help to secure input from relevant chair groups related to Theme (2) Policy and Communication (e.g. Faculty 09 or Faculty 03). This recommendation of support on the strategic level is equally true for UCD (**Finding 3**).

At the same time, a JLU programme director could substantially improve JLU's intake via a systematic student marketing, which so far seems limited to BSc Biology graduates from JLU mainly. Student fees requested from UCD do not prevent German students from choosing the programme, as documented by the fact that more than half of the graduates of the programme originated from Germany. At the same time, graduates of the programme are able to secure attractive job positions. Strengthening the student marketing activities of the programme to reach out to the numerous BSc-programs in Biology at other universities as well as universities of applied sciences in Germany would possibly benefit JLU in three ways: (1) through securing the sustainability of the programme, and thereby (2) strengthening a light house project in context of its internationalization strategy 2016-2026 while at the same time (3) positioning JLU's aspiration of "Translating Science" even more prominently in Germany.

7. Quality Assurance

A specifically implemented body called M.Sc. Global Change Working Group meets regularly – in March at JLU and in June and/or September at UCD – to review the programme; especially to evaluate the current JLU or UCD semester, work placements and research for thesis, to take note of students' and lecturers' feedback and to decide on the programmes' amendments. Plan of actions are decided upon and reviewed in the next meeting.

The universities co-operate in collating all of the information needed to meet the requirements of internal quality review and external bodies or other professional and statutory bodies. The programme of study is subject to the regular quality assurance processes operated by each institution. It is the responsibility of the Global Change Working Group to ensure that the respective quality assurance processes are complied with.

The programme has been continuously monitored since the beginning through various protocols. The programme is already part of a quality assurance system (system accreditation) at UCD. A standing procedure is carried out by the UCD Academic Council Committee on Quality (ACCQ) to review annually all taught programmes delivered via collaborative and/or transnational arrangements. This is in addition to the academic review of each individual programme by an External Examiner who delivers an annual report at the end of each 16-month period.

Assessment

As the programme is a cooperation between two institutions that do not have a joint quality assurance system, the programme has set up a pragmatic and programme-oriented mechanism of quality enhancement. The feedback of the students concerning workload, quality of teaching, quality of internship etc. is collected through the good contact between the coordinator / main actors of the programme, and the students. The Global Change Working (GCWG) group collects the information and decides on the programmes' development. In the last years, JLU installed a quality committee on the central level, which also covers this Master's programme. However, due to the small number of students an anonymous evaluation is hardly feasible.

While currently a formalised evaluation of the graduate's career paths does not exist, their progress is under supervision by the GCWG. JLU is currently adjusting its methodology of graduate

evaluation with a new service provider potentially allowing for an improved analysis in the future. First steps are taken for an alumni network; effects could not yet be seen.

Adjustments of the programme are realised by the GCWG at JLU and a corresponding team at UCD. The working group committee meets more than twice a year besides very active exchange between the meetings. It can be concluded that the quality assurance mechanisms are in place and suit the needs of the study programme.

8. Findings

1. It has to be demonstrated that core modules related to Theme (2) cover the theoretical and methodological aspects of scientific facts/evidence in policy making and political communication in a systematic and comprehensive manner.
2. It has to be reassured that the module handbook is up to date, also including the information on staff responsible for the respective modules.
3. To increase sustainability of the programme more resources should be provided by JLU and UCD for marketing and coordination.
4. Relevant senior lecturers/full professors and chair groups from the field of Policy and Communication should also be involved in the programme at both universities.

III. Beschlussempfehlung

Kriterium 2.1: Qualifikationsziele des Studiengangskonzepts

Das Studiengangskonzept orientiert sich an Qualifikationszielen. Diese umfassen fachliche und überfachliche Aspekte und beziehen sich insbesondere auf die Bereiche

- *wissenschaftliche oder künstlerische Befähigung,*
- *Befähigung, eine qualifizierte Erwerbstätigkeit aufzunehmen,*
- *Befähigung zum gesellschaftlichen Engagement*
- *und Persönlichkeitsentwicklung.*

Auf Grundlage der obigen Bewertung wird das Kriterium als erfüllt angesehen.

Kriterium 2.2: Konzeptionelle Einordnung des Studiengangs in das Studiensystem

Der Studiengang entspricht

- (1) den Anforderungen des Qualifikationsrahmens für deutsche Hochschulabschlüsse vom 21.04.2005 in der jeweils gültigen Fassung,*
- (2) den Anforderungen der Ländergemeinsamen Strukturvorgaben für die Akkreditierung von Bachelor- und Masterstudiengängen vom 10.10.2003 in der jeweils gültigen Fassung,*
- (3) landesspezifischen Strukturvorgaben für die Akkreditierung von Bachelor- und Masterstudiengängen,*
- (4) der verbindlichen Auslegung und Zusammenfassung von (1) bis (3) durch den Akkreditierungsrat.*

Auf Grundlage der obigen Bewertung wird das Kriterium als erfüllt angesehen.

Kriterium 2.3: Studiengangskonzept

Das Studiengangskonzept umfasst die Vermittlung von Fachwissen und fachübergreifendem Wissen sowie von fachlichen, methodischen und generischen Kompetenzen.

Es ist in der Kombination der einzelnen Module stimmig im Hinblick auf formulierte Qualifikationsziele aufgebaut und sieht adäquate Lehr- und Lernformen vor. Gegebenenfalls vorgesehene Praxisanteile werden so ausgestaltet, dass Leistungspunkte (ECTS) erworben werden können.

Es legt die Zugangsvoraussetzungen und gegebenenfalls ein adäquates Auswahlverfahren fest sowie Anerkennungsregeln für an anderen Hochschulen erbrachte Leistungen gemäß der Lissabon-Konvention und außerhochschulisch erbrachte Leistungen. Dabei werden Regelungen zum Nachteilsausgleich für Studierende mit Behinderung getroffen. Gegebenenfalls vorgesehene Mobilitätsfenster werden curricular eingebunden.

Die Studienorganisation gewährleistet die Umsetzung des Studiengangskonzepts.

Auf Grundlage der obigen Bewertung wird das Kriterium mit Einschränkungen als erfüllt angesehen.

Die Gutachtergruppe konstatiert folgenden Veränderungsbedarf:

- *It has to be demonstrated that core modules related to Theme (2) cover the theoretical and methodological aspects of scientific facts / evidence in policy making and political communication in a systematic and comprehensive manner.*

Kriterium 2.4: Studierbarkeit

Die Studierbarkeit des Studiengangs wird gewährleistet durch:

- *die Berücksichtigung der erwarteten Eingangsqualifikationen,*
- *eine geeignete Studienplangestaltung*
- *die auf Plausibilität hin überprüfte (bzw. im Falle der Erstakkreditierung nach Erfahrungswerten geschätzte) Angabe der studentischen Arbeitsbelastung,*
- *eine adäquate und belastungsangemessene Prüfungsdichte und -organisation,*
- *entsprechende Betreuungsangebote sowie*
- *fachliche und überfachliche Studienberatung.*

Die Belange von Studierenden mit Behinderung werden berücksichtigt.

Auf Grundlage der obigen Bewertung wird das Kriterium als erfüllt angesehen.

Kriterium 2.5: Prüfungssystem

Die Prüfungen dienen der Feststellung, ob die formulierten Qualifikationsziele erreicht wurden. Sie sind modulbezogen sowie wissens- und kompetenzorientiert. Jedes Modul schließt in der Regel mit einer das gesamte Modul umfassenden Prüfung ab. Der Nachteilsausgleich für behinderte Studierende hinsichtlich zeitlicher und formaler Vorgaben im Studium sowie bei allen abschließenden oder studienbegleitenden Leistungsnachweisen ist sichergestellt. Die Prüfungsordnung wurde einer Rechtsprüfung unterzogen.

Auf Grundlage der obigen Bewertung wird das Kriterium als erfüllt angesehen.

Kriterium 2.6: Studiengangsbezogene Kooperationen

Beteiligt oder beauftragt die Hochschule andere Organisationen mit der Durchführung von Teilen des Studiengangs, gewährleistet sie die Umsetzung und die Qualität des Studiengangskonzepts. Umfang und Art bestehender Kooperationen mit anderen Hochschulen, Unternehmen und sonstigen Einrichtungen sind beschrieben und die der Kooperation zu Grunde liegenden Vereinbarungen dokumentiert.

Auf Grundlage der obigen Bewertung wird das Kriterium als erfüllt angesehen.

Kriterium 2.7: Ausstattung

Die adäquate Durchführung des Studiengangs ist hinsichtlich der qualitativen und quantitativen personellen, sächlichen und räumlichen Ausstattung gesichert. Dabei werden Verflechtungen mit anderen Studiengängen berücksichtigt. Maßnahmen zur Personalentwicklung und -qualifizierung sind vorhanden.

Auf Grundlage der obigen Bewertung wird das Kriterium als erfüllt angesehen.

Kriterium 2.8: Transparenz und Dokumentation

Studiengang, Studienverlauf, Prüfungsanforderungen und Zugangsvoraussetzungen einschließlich der Nachteilsausgleichsregelungen für Studierende mit Behinderung sind dokumentiert und veröffentlicht.

- Auf Grundlage der obigen Bewertung wird das Kriterium als erfüllt angesehen.

Kriterium 2.9: Qualitätssicherung und Weiterentwicklung

Ergebnisse des hochschulinternen Qualitätsmanagements werden bei den Weiterentwicklungen des Studienganges berücksichtigt. Dabei berücksichtigt die Hochschule Evaluationsergebnisse, Untersuchungen der studentischen Arbeitsbelastung, des Studienerfolgs und des Absolventenverbleibs.

Auf Grundlage der obigen Bewertung wird das Kriterium als erfüllt angesehen.

Kriterium 2.10: Studiengänge mit besonderem Profilanspruch

Studiengänge mit besonderem Profilanspruch entsprechen besonderen Anforderungen. Die vorgenannten Kriterien und Verfahrensregeln sind unter Berücksichtigung dieser Anforderungen anzuwenden.

Das Kriterium entfällt.

Kriterium 2.11: Geschlechtergerechtigkeit und Chancengleichheit

Auf der Ebene des Studiengangs werden die Konzepte der Hochschule zur Geschlechtergerechtigkeit und zur Förderung der Chancengleichheit von Studierenden in besonderen Lebenslagen wie beispielsweise Studierende mit gesundheitlichen Beeinträchtigungen, Studierende mit Kindern, ausländische Studierende, Studierende mit Migrationshintergrund und/oder aus sogenannten bildungsfernen Schichten umgesetzt.

Auf Grundlage der obigen Bewertung wird das Kriterium als erfüllt angesehen.

Zur Weiterentwicklung des Studiengangs gibt die Gutachtergruppe folgende Empfehlungen:

- To increase sustainability of the programme more resources should be provided by JLU and UCD for marketing and coordination.
- Relevant senior lecturers / full professors and chair groups from the field of Policy and Communication should also be involved in the programme at both universities.
- It has to be reassured that the module handbook is up to date, also including the information on staff responsible for the respective modules.

Die Gutachtergruppe empfiehlt der Akkreditierungskommission von AQAS, den Studiengang „**Global Change - Ecosystem Science and Policy**“ an der **Universität Gießen in Kooperation mit dem University College Dublin** mit dem Abschluss „**Master of Science**“ unter Berücksichtigung des oben genannten Veränderungsbedarfs zu akkreditieren.