Maastricht University

UNITED NATIONS UNIVERSITY

PhD Programme on Innovation, Economics and Governance for Development

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

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PhD Programme on Innovation, Economics and Governance for Development

Programme Summary

This multidisciplinary PhD programme is offered by the United Nations University - Maastricht Economic and social Research institute on Innovation and Technology (UNU-MERIT).

The programme provides advanced training in the knowledge and skills most relevant to the economics of technology, migration and innovation, and to governance, social protection and public policy analysis. While built around a common core of courses dealing with the economics of innovation and development, the programme also offers specialised elective courses in governance, public policy and the economics of technology.

Our programme trains fellows to become scholars and practitioners in the fields of the economics of technology and of governance broadly conceived. Both coursework and research in the institute are aimed at socially relevant knowledge, with a focus on development and sustainability, working through innovation, social protection and migration.

A core objective is to create a critical mass of researchers specialised in economics and governance of innovation and technical change, but also social protection, migration, social policy, and development. Our graduates become leading researchers in the field and are able to provide advice based on sound results. Our PhD Programme on Innovation, Economics and Governance for Development (IEGD) is a four-year, Maastricht-based programme starting in September each year. It is taught entirely in English. Maastricht University awards the doctoral degree upon successful defence of the thesis.

During the first year fellows complete basic compulsory training to lay a foundation for their future research. There are also elective courses that engage fellows in the topics in which the institute specialises. These courses vary from year to year depending on the interest of the fellows and faculty.

The first year ends by writing a thesis proposal, which is presented to the institute at the end of the academic year. Successful completion of the first year is followed by dissertation research and writing.

Students pursue a wide variety of dissertation topics fitting into any of the institute's eight research themes:

1. The Economics of Knowledge and Innovation
2. Social Protection, Inclusive Innovation and Development
3. Economic Development, Innovation, Governance and Institutions
4. Sustainable Development, Innovation and Societal Transitions
5. Innovation Systems Indicators and Policy
6. Migration and Development
7. ICT-enabled Innovation and Societal Transformations
8. Population, Development and Labour Economics

The Host Institute

UNU-MERIT is a research and training institute of United Nations University (UNU) based in the south of the Netherlands, which collaborates closely with Maastricht University.

The institute's research mission is to provide new insights into the economic, social and political aspects of growth and development in local and international contexts. Its research and training programmes address a broad range of questions including the economics of technology and innovation, multi-level governance, intellectual property protection, social protection policy, knowledge creation and diffusion, and migration.

Researchers at UNU-MERIT are internationally recognised for their contributions to the understanding of the economic, political, social and philosophical foundations of the processes of technical change. The institute also has a history of project implementation for international institutions such as the World Bank, UNICEF, UNDP, ILO and national governments.

The Programme

Our PhD programme provides advanced training in the knowledge and skills relevant not only to basic research in a variety of fields linked to economics, technology and governance, but also to policy analysis including policy design, policy monitoring and policy evaluation.

PhD fellows follow individualised plans that outline the requirements for completion of the programme. These plans take into account their research interests and their educational and professional backgrounds. They are agreed upon with the programme committee at the start of the course and with the supervisory team in subsequent years of the programme.

Training Programme

During the first year, fellows complete a basic compulsory training programme conducted by members of our faculty. The courses are spread across two semesters and taught in Maastricht.

The first semester consists of a course programme to be taken by all fellows. In the second semester, we offer a menu of elective courses and fellows build their own programme, focussed on different aspects of innovation, social protection or migration. At the end of the first year, fellows defend a thesis proposal, following which they spend three years writing a PhD dissertation, leading to a PhD at Maastricht University.

Calendar 2019-20

1 Sep. 2019	Introduction week and microeconomics course				
2 Sep. 2019 - 20 Dec. 2019	Economics of innovation	Policy evaluation	Governance of development as a complex social system	Leveraging technology and innovation for the Sustainable Development Goals	(Socio) Economic Development
21 Dec. 2019 - 6 Jan. 2020	Winter break				
20 Jan. 2019 - 31 March 2020	Specialisation courses				

The Economics of Innovation

Here we sketch nine topics / sessions for the course on the economics of innovation. The nine topics are selected on the basis of two criteria. First, they provide a coherent story of the role that innovation plays in economic development, i.e., when seen as a set they provide students with a UNU-MERIT view on 'innovation'. Second, the topics are chosen for the opportunities they provide for linkages to other research themes in the institute, and, as a logical consequence, to the other PhD courses in the first or second semester.

Each topic, listed below, consists of a number of sub-topics.

We start with the basics: How does innovation interact with the economy? various models of innovation; technological paradigms and trajectories; long waves and (economic) history. Microeconomic principles: equilibrium and optimisation versus disequilibrium and evolution theories.

We turn to the global picture: Economic development and international diffusion of knowledge; structural change and international trade; absorptive capacity and country capabilities; global value chains. Sustainability and energy transitions: large technological systems; transition theory and policy; clean energy and the location of production and consumption.

Innovation systems: Actors and roles: the Community Innovation Survey and firm innovation activities; science, technology and innovation policy; the system of Research and Development (R&D). Localised interaction: University-industry interaction; local economic impact of universities; why innovation clusters; types of local innovation clusters; smart specialisation.

Development or a lack of it: The developmental state: Asian tigers; technology gap model; global value chains. Latin American: the structural model; balance-of-payments restricted growth. Agriculture: the green revolution; diffusion of agricultural knowledge; IPRs. Inclusive innovation: bottom of the pyramid; entrepreneurship and micro credit; sanitation and basic necessities.

Innovation, labour markets and inequality: Development, employment, inequality: empirical regularities; theoretical underpinning. Product and process innovation: effects on employment; general equilibrium and labour supply models; skills biases and structural unemployment. Automation: employment impacts; innovation and (soft) skills. The global picture: trade vs. technology for explaining outsourcing; local labour markets and the China effect. Developing countries: formal and informal sectors and decent employment; international trade and the living wage.
Innovation and the international movement of production factors: Technology-based explanations of trade: basic trade models; extensive and intensive margins; technology gap adjustment theory. Sociology of global value chains. Foreign direct investment and technology spillovers. Economic structure and migration. Technology transfer.

Regions and cities: Geography of innovation: industrialisation and de-industrialisation; economic migration. Inventors and researchers: measuring and explaining output; co-operation networks; migration of high-skilled labour. Cities: Jacobs vs. Marshall externalities; the Triple Helix; academic entrepreneurship.

Public Policy: Indicators for policymaking: the EU scoreboard; Lisbon process. Motivations for policy: market-failure and systems failure; types of policy. Industrial policy: historical experiences and a new fashion.

Sustainability and innovation: Circular economy: engineering and waste; NIMEA accounts; the sharing economy.

Programme and Policy Evaluation

How do we know whether (public) policies or programmes work for development? For example, does business training improve business outcomes? What is the role of networks in adopting new products or technologies? Do R&D subsidies improve private R&D spending? Rigorous evidence on these issues helps to better design and target new programmes and policies.

The main objective of the course is to build problem-solving and research skills for evidence-based interventions and policies, with a focus on developing and transition economies.

Students will learn the basic intuition behind (quasi)-experimental designs including RCTs DID, PSM, IV and review assumptions and criteria for the validity of each of these approaches. Students will gain experience in deciding which approach(es) are most appropriate for a given research question and context. We will draw on several empirical applications in class, and learn about challenges and potential pitfalls in conducting successful impact evaluations in practice. STATA tutorials will help students familiarise themselves with analysing quantitative datasets to assess the impact of a policy or programme using (quasi)experimental methods.

After successful completion of this course students are expected to be able to:

- Compare and understand quantitative impact assessment methods;
- Analyse and interpret existing impact assessments in relation to theory and policy objectives including the SDGs;
- Analyse the quality and appraise the policy implications of impact assessments performed by others;
- Design their own impact assessments;
- Investigate impact assessment using existing studies and data.

The Governance of Development as a Complex Social System

This course offers an introduction to the study of governance of development as a complex social system. The approach of complex social systems emphasises the emergence, evolution and adaptation of constellations created by social structures, agents and interaction dynamics among them. This approach aims at comprehending the heterogeneity of arrangements, relations and causalities shaping developmental trajectories at sub-national, national, transnational and international levels. By adopting this perspective the course will analyse the evolution of key priorities, tendencies and dilemmas of development in academic debates as well as in policy practice. Therefore, it also introduces governance challenges faced during the processes of steering and coordination of development. Finally, the course analyses how these dynamics inform the governance of public policy areas by analysing governance principles and policy tools. It involves the understanding of policy tools choices in addressing different public policy challenges and tasks.

Following this basic approach, the course encompasses examples from different policy areas, including innovation systems, health, energy and environment, political regimes in the broader context of development. The course will also illustrate how the basic concepts and analytical perspectives on complexity of development can be captured by different methods and tools of analysis (e.g. system dynamics modelling, network analysis, qualitative comparative analysis or Q-methodology). However, it will not be a training in research methods.

Objectives
This course will contribute to the general objectives of the PhD Programme in two aspects. Firstly, it structures and extends participants' knowledge about development and its governance dynamics. Secondly, it enhances students' capacity to analyse policy problems in the context of complex social systems in an ordered and focused approach. The objectives are accomplished through:

• The mapping and classification of the main elements of the governance of development as a complex social system;
• The advanced understanding of analytical concepts illustrated by examples from different policy areas;
• Critical and innovative engagement with the academic debates about the governance of development.

Leveraging Technology and Innovation for the Sustainable Development Goals (SDGs)

In this course, we will study the evolutionary processes that are pushing the knowledge frontiers of science, generating new technology and other forms of innovation and impacting economic development. In particular, we will examine the pathways by which new technology and innovation are contributing to the attainment of the Sustainable Development Goals (SDGs). Such an enquiry is important, because for certain problems there are no technological solutions at present (i.e. there is a need for innovation), or there are multiple solutions (i.e. choices need to be made) or a solution design for one SDG can pose short-term or long-term risks for the attainment of another (i.e. trade-offs need to be weighed). In this context, governance is key to harnessing the potential of science, technology and innovation for societal welfare. For good governance vis-à-vis technology and innovation, we need to understand the dynamics of actor-group interactions within innovation systems and the possible impact of regulation and incentive design on systemic outcomes. The challenges being faced by middle and low income countries for the attainment of all the SDGs will be covered through the following lectures. The seminal articles will be covered in the lectures and students will be asked to present case studies. The 17 SDGs will be covered in the student presentations.

(Socio-) Economic Development

The course provides a broad overview of (macro-) economic development. In particular, the course aims to provide students – in an integrated framework – with knowledge on three particular dimensions of economic development: the empirical analysis of (country) development experiences; the theory of economic development; and major issues in development economics. The course will begin with a discussion of: what is meant by economic (and social) development; how we measure economic and social development (including and beyond per capita GDP); and how difficult the process of development is (based upon a discussion of very long-run data and examples of the few countries that have been able to develop in the more recent past). In the introduction we will further discuss convergence and divergence as well as the role of the Sustainable Development Goals (SDGs) as a means of framing the discussion of development. The remainder of the course will be organised around particular determinants of economic development. These include:

• Technology and innovation;
• International trade and globalisation;
• Industry and structural change;
• The deep determinants of development (Geography and Institutions);
• Human Capital; and
• Urbanisation and internal migration.

During the discussion of each of these topics emphasis will be placed on identifying and understanding both relevant development theories and empirical evidence and country experiences. In addition to obtaining an understanding of the major issues of development at the macro level, the course will therefore also provide a broad overview of different development theories and an understanding of relevant empirical approaches to address the causes of

development at the aggregate level. While much of the discussion of these topics will be on economic indicators such as income per capita, time will be spent identifying impacts on broader social indicators of development, most notably inequality and poverty, with the role of policy in influencing these outcomes also introduced.

Second Term Elective Courses

The second term consists of a variety of elective courses. A menu of courses is offered from which fellows select approximately four which fit with their research interests. The menu changes from year to year, but a representative list would include:

- Innovation in the public sector;
- Technical change: Economic theory and evolutionary modelling;
- Firm-level innovation and learning in developing countries: Technological capabilities, enterprise clusters, global value chains;
- Innovation indicators and policy;
- Economics and econometrics of innovation
- Uncovering causality in innovation processes and outcomes

- Microeconomics of development: Theory, evidence and policy;
- Entrepreneurship in developing countries;
- Access to justice as a means to promote the rule of law;
- Economics of networks;
- Political violence and human development;
- Organisational economics;

- Migration: Introduction to migration studies;
- Migration: Migration theory;
- Migration: Forced migration;
- Migration: Internal migration;

- Social protection and economic growth
- Social protection: The future of work and the welfare state
- Social protection and human development
- The global social challenge: Beyond poverty and inequality

The Dissertation

At the end of the first nine months, fellows present a research proposal and a detailed research plan for the remaining part of the fellowship. In defining their research topics, fellows will be guided by the staff of the institute, the teaching staff and partners of the research network. Supervision during the entire project will be given by a specific team of senior researchers who can provide the required expertise to guide and oversee fellows' research.

In subsequent years fellows pursue their thesis research and write their dissertation. The programme is full-time, and based in Maastricht, and fellows treat Maastricht as their home base for the duration of the project. However, many research topics of central interest to the institute involve issues relevant to regions outside Europe: Africa, Asia and Latin America in particular. Consequently, many fellows do empirical research based on other countries, and so often spend time abroad doing field work.

"I have learnt so much more than just science..."

I think UNU-MERIT has found an innovative way to set high academic standards and at the same time be accommodating. Students come from different academic backgrounds -- but the institute provides them with plenty of opportunities to quickly learn the institute's way through coursework, seminars, skills trainings and peer-study groups. In fact, the institute is so flexible that it allows students to work with external supervisors if needed.

The research community at UNU-MERIT is truly international... Here, you can find people from all over the world, as well as from different social and academic backgrounds. The remarkably diverse but strongly bonded community of the institute makes me and my colleagues feel very much at home.

Overall, being part of this community has provided me a good opportunity to learn and appreciate different cultures and expertise. Over the course of my stay here, I have learnt so much more than just science from the many conversations and debates that take place here every day at UNU-MERIT.

Jemal Adem, PhD fellow cohort 2014

Teaching Methods

Courses are offered in a dynamic setting: the programme uses interactive learning, including workshops, lectures and discussion sessions. Each teacher in the programme offers a mode of instruction suitable for the course, and each course is examined in an appropriate manner.

Language

The language of instruction for the programme is English. For fellows who are non-native English speakers, the programme's English curriculum strengthens their command of the language and prepares them for international careers.

Skills Trainings

During the programme, fellows can participate in training courses to build their research and analytical skills. These include research methodology and applications, as well as the technical skills required for:
- Research (including software skills)
- Research project implementation and publication
- Communication and presentation of findings
- Application of research findings to government policy.

Research Activities

UNU-MERIT organises a range of activities designed to stimulate academic debate, disseminate research findings, and facilitate knowledge sharing among researchers and policymakers. The institute hosts regular workshops and training courses as part of their research and policy analysis programmes. For more details, please visit our calendar of events.

The institute also hosts occasional workshops, which fellows are invited to attend. For example, 'Metech' is a seminar series in which fellows from UNU-MERIT and its School of Governance help other fellows in an informal manner, sharing research-based software and particular research methodologies that might be useful in their academic lives.

Research Community

Fellows of the PhD programme will be fully integrated into the research community of UNU-MERIT. The community includes regular PhD fellows, academic staff and the numerous visiting scholars of the partner universities.

Brochures

Our latest brochure can be downloaded from our website, or sent directly via post or email. Please contact:
Ms Eveline in de Braek
Tel: +31 43 388 4449
Email: phdprogramme@merit.unu.edu

Profile and Prospects

International Profile

We leverage the academic resources of the UNU, Maastricht University and our strong international network. Experts from universities and international organisations come from around the world to share their expertise with fellows by teaching courses and giving workshops and lectures.

The institute's large international network also provides internship possibilities for our students and fellows. About 80 per cent of the fellows and researchers at UNU-MERIT come from outside the Netherlands, hailing from more than 55 countries around the world.

This diversity results in a stimulating blend of country-specific knowledge and individual experience. In seminars and in the classroom, fellows are exposed to many different views and ways of approaching ideas and topics.

Key Lecturers

The programme brings together scholars with various disciplinary backgrounds from leading institutes across the world and practitioners from policy-oriented organisations in order to initiate new research, contribute to current research and train young researchers.

The faculty of the PhD programme comprises:
- Prof. Anthony Arundel, Maastricht University
- Dr. Michal Natorski, Maastricht University
- Prof. Dr. Robin Cowan, Maastricht University
- Dr. Neil Foster-McGregor, UNU-MERIT
- Prof. Dr. Franziska Gassmann, Maastricht University
- Prof. Dr. Fred Gault, UNU-MERIT
- Dr. Micheline Goedhuys, UNU-MERIT
- Dr. Maty Konte, UNU-MERIT
- Prof. Dr. Rene Kemp, Maastricht University
- Prof. Dr. Khalid Koser, Maastricht University
- Dr. Lutz Krebs, Maastricht University
- Dr. Mindel van de Laar, Maastricht University
- Dr. Julieta Marotta, Maastricht University
- Dr. Bruno Martorano, Maastricht University
- Dr. Nanditha Mathew, UNU-MERIT
- Prof. Dr. Pierre Mohnen, Maastricht University
- Prof. Dr. Ir. Eleonora Nillesen, UNU-MERIT
- Dr. Zina Nimeh, Maastricht University
- Prof. Dr. Shyama V. Ramani, Maastricht University
- Prof. Dr. Melissa Siegel, Maastricht University
- Prof. Ronald Skeldon, Maastricht University
- Gerald Silverbeg, UNU-MERIT
- Dr. Tatiana Skripka, Maastricht University
- Prof. Dr. Adam Szirmai, Maastricht University
- Dr. Nyasha Tirivayi, UNU-MERIT
- Dr. Fabiana Visentin, UNU-MERIT
- Prof. Dr. Bart Verspagen, Maastricht University
- Dr. Lili Wang, Maastricht University
- Dr. Hampton Wong, Maastricht University

Student Profile

We admit fellows from a variety of backgrounds to participate in the programme. We are looking for people with a Master's degree and strong academic records, professional and / or volunteer experience, affiliation with academic research, and a special interest in economics, innovation, development and public policy, including social protection and migration.

Career Prospects

Our programme gives fellows the skills to function as professionals in many challenging environments. Our PhD fellows typically go on to work as:
- Academics
- Government staff
- Political analysts
- Policy specialists

Many of our alumni now work for NGOs, research institutes such as the Institute of Development Studies (IDS) and Overseas Development Institute (ODI), as well as international organisations including the European Union, United Nations and World Bank.

Practical Information

Admissions

When choosing a PhD programme, applicants need to know whether their diplomas qualify them for the PhD programme of their choice. Below are our current admissions requirements:

- A Master's degree from a relevant academic field including: economics, international relations, political science, law, social sciences, or business administration.
- Basic knowledge of mathematics and statistics, measured by reviewing the content and level of previous studies and/or working experience
- Basic knowledge of economics, social sciences, political science and/or law, measured by reviewing the content and level of previous studies and/or working experience
- Proficiency in English, with a minimum level of 600 PBT / 240 CBT / 100 IBT for the TOEFL or 7.0 for the IELTS (native English speakers and fellows who received Bachelor's or Master's in English are exempt). Maastricht University's TOEFL code is 7102.

Applying

As part of our online application, applicants must submit the following:

- Certified copies of certificates and grades and an explanation of the grading system
- Proof of English proficiency
- A motivation letter of 400-500 words
- Three letters of recommendation (in English only) by current or former professors or employers
- A one-page essay indicating the topic of research interest or one-page research proposal
- A curriculum vitae / résumé
- Full information about present study and/or job.

Deadline: 15 February 2019. For more information, please go to: http://www.merit.unu.edu/training/iegd

Tuition Fees

The following tuition fees are applicable to those enrolled in the PhD programme for the 2019-2020 academic year:

First year: €8000 *
Subsequent years: €4000 *

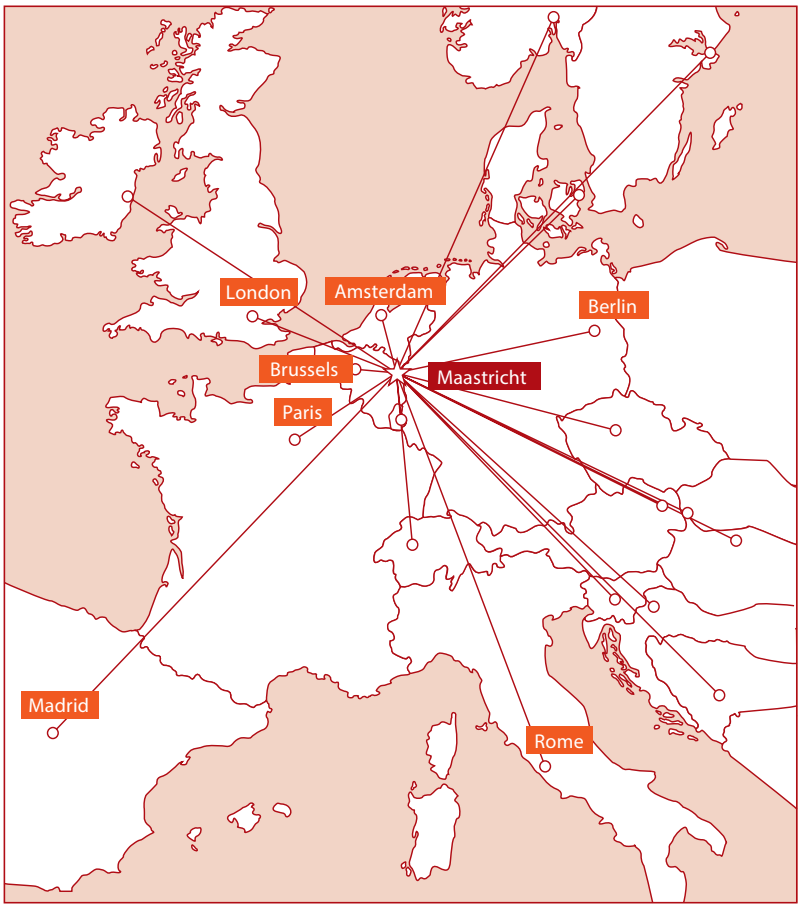
The tuition fee includes all programme-related costs. This excludes books, specific research costs, travel costs, accommodation, and visa or residence permit costs.
* No rights may be derived from the fees published here.

Scholarships

Each year we distribute a limited number of scholarships and tuition waivers among the accepted fellows. However, we encourage students to apply for other scholarships and sources of funding. For more information please visit the scholarship pages of the university website. More details on grants and scholarships can be found at: https://www.studyinholland.nl/scholarships/find-a-scholarship

Fellows who do not receive a scholarship from UNU, or from another funding agency, will be asked for proof of sufficient funding before being accepted on to the programme. The basic cost of living in Maastricht is around 1000 euros per month, detailed in the table below.

Average Monthly Living Costs (in euros)	
Housing (student room)	500
Meals	400
Insurance	40
Facilities (copy cards and office expenditures)	20
Text books	40
Total	1000



Part-time PhD Programme

Part-time PhD (GPAC^2)

In addition to the full-time PhD programme, UNU-MERIT offers a part-time Dual Career Training Programme (GPAC^2). The programme has two specialisations: one in Governance & Policy Analysis, and another in the Economics of Technology, Innovation & Development.

The programme meets the needs and availability of researchers with full-time or part-time jobs, allowing them to combine their careers with obtaining a PhD.

Key lecturers are leading scholars in the field of policy analysis and related areas such as governance, social protection, the economics of technology and innovation, sustainable development, and migration. GPAC^2 is taught in English and consists of three workshops (each lasting two weeks) in the first year, and two workshops (each lasting one week) in the subsequent years.

Employment a Prerequisite

The GPAC^2 training programme differs from a regular PhD programme. Although fellows participate in the training with the objective of obtaining a PhD, they are not considered regular PhD fellows.

Employment is a prerequisite to be eligible for the training programme. GPAC^2 participants are either self-employed or employed by business or the public sector and therefore have their own source of income.

UNU-MERIT will not employ a GPAC^2 participant nor pay a salary or scholarship for either participating in the programme or conducting research. GPAC^2 fellows will be enrolled as training participants and not as employees of the university.

In order to graduate, GPAC^2 fellows have to submit a manuscript and fulfill conditions equal to standards that are required for the full-time PhD programme participants. This means the fellows have to comply with the regulation governing the attainment of doctoral degrees.

At the beginning of the programme fellows will receive more information about coursework, research and programme procedures. After successfully finishing the training programme and submitting a PhD proposal, fellows will have and/or receive:

- A certificate confirming participation in and completion of the training programme
- A number of articles submitted, accepted and/or published in refereed scientific journals
- A PhD thesis in printed book format
- A PhD degree, upon successful submission and defence of the dissertation.

For more details, please contact us on:
Tel: +31 43 388 4650
Email: info-governance@maastrichtuniversity.nl

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www.merit.unu.edu/training

Based in Europe, focused on the world. Maastricht University is a stimulating environment. Where research and teaching are complementary. Where innovation is our focus. Where talent can flourish. A truly student oriented research university.

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