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QUALITÄTSSICHERUNG DURCH
AKKREDITIERUNG VON
STUDIENGÄNGEN E.V.

FINAL REPORT

ERASMUS MUNDUS MASTER OF SCIENCE IN PUBLIC SECTOR INNOVATION AND E-GOV- ERNANCE (PIONEER) (MASTER OF SCI- ENCE)

OFFERED BY

UNIVERSITY OF MÜNSTER (GERMANY),

KATHOLIEKE UNIVERSITEIT LEUVEN (BELGIUM), AND

TALLINN UNIVERSITY OF TECHNOLOGY (ESTONIA)

May 2024

Assessment following the European Approach
for Quality Assurance of Joint Programmes



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DECISION OF THE AQAS STANDING COMMISSION ON THE STUDY PROGRAMME

“ERASMUS MUNDUS MASTER OF SCIENCE IN PUBLIC SECTOR INNOVATION AND E-GOVERNANCE (PIONEER) (MASTER OF SCIENCE)

JOINTLY OFFERED BY

- UNIVERSITY OF MÜNSTER (GERMANY),
- KATHOLIEKE UNIVERSITEIT LEUVEN (BELGIUM), AND
- TALLINN UNIVERSITY OF TECHNOLOGY (ESTONIA)

Based on the report of the expert panel, the comments by the university and the discussions of the AQAS Standing Commission in its 21st meeting on 27th of May 2024, the AQAS Standing Commission decides:

1. The study programme “**Erasmus Mundus Master of Science in Public Sector Innovation and E-Governance**” (**PIONEER**) (**Master of Science**) jointly offered by University of Münster (Germany), Katholieke Universiteit Leuven (Belgium), and Tallinn University of Technology (Estonia) is accredited according to the criteria and procedures defined in the European Approach for Quality assurance of Joint Programmes. The study programme complies with the requirements defined by the European Approach for Quality assurance of Joint Programmes and the European Qualifications Framework (EQF) in their current version.
2. The accreditation is given for the period of **six years** and is valid until **31 May 2030**.

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

1. Restructuring the observational internship is endorsed and it is recommended integrating real-case scenarios from the discipline's sector to enhance the applied focus of the programme.
2. An early communication on the programme's baseline research skills is advised.
3. It is recommended that the programme's curriculum integrates non-EU viewpoints to provide a broader understanding of global public innovation and e-governance.
4. It is recommended to enhance the support to formalise alumni engagement to establish a constant point of exchange with PIONEER alumni outside the established informal ways.
5. It is recommended to establish, e.g. a resource hub to empower students in navigating typical cohort issues of joint programmes in the transition phases more effectively.
6. It is suggested to enhance the efforts towards continuous quality enhancement in the PIONEER programme by:
 - a. fostering more robust discussions on emerging topics within the advisory board,
 - b. while also facilitating informal exchanges among staff to promote, e.g., collaborative teaching initiatives.

With regard to the reasons for this decision the Standing Commission refers to the attached experts' report.

**EXPERTS' REPORT ON THE ACCREDITATION
ON THE STUDY PROGRAMME**

- **“ERASMUS MUNDUS MASTER OF SCIENCE IN PUBLIC SECTOR INNOVATION AND EGOVERNANCE” (PIONEER) (MASTER OF SCIENCE)**

OFFERED BY

UNIVERSITY OF MÜNSTER (GERMANY), KATHOLIEKE UNIVERSITEIT LEUVEN (BELGIUM), AND TALLINN UNIVERSITY OF TECHNOLOGIES (ESTONIA)

Date of site visit: 27 – 28 February 2024

Panel of experts:

Prof. Dr. Lieselot Danneels	Ghent University (Belgium), Faculty of Economics and Business Administration, Department of Public Governance and Management
Prof. Dr. Maria A. Wimmer	Koblenz University (Germany), Faculty of Computer Science, Research group E-Government
Francesco Mureddu	The Lisbon Council (Belgium) (representative of the labour market)
Luc Zettl	Andrássy University (Hungary) (student expert)
Coordinator: Patrick Heinzer	AQAS e.V., Germany

I. Preamble

The University of Münster (Germany), together with Katholieke Universiteit Leuven (Belgium), and the Tallinn University of Technology (Estonia) is applying for the accreditation of the study programme “Erasmus Mundus Master of Science in Public Sector Innovation and eGovernance” (PIONEER) leading to the degree of “Master of Science”. This final report by the panel of experts is based on the university’s written application documents and the results of the site visit. In particular, the descriptive parts of the experts’ report refer to the submitted Self Evaluation Report.

AQAS – Agency for Quality Assurance through Accreditation of Study Programmes – is an independent non-profit organisation supported by more than 90 universities, universities of applied sciences and academic associations. Since 2002, the agency has been recognised by the German Accreditation Council (GAC). It is, therefore, a notified body for the accreditation of higher education institutions and programmes in Germany.

AQAS is a full member of ENQA and also listed in the European Quality Assurance Register for Higher Education (EQAR) which confirms that our procedures comply with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), on which all Bologna countries agreed as a basis for internal and external quality assurance.

AQAS is an institution founded by and working for higher education institutions and academic associations. The agency is devoted to quality assurance and quality development of academic studies and higher education institutions’ teaching. In line with AQAS’ mission statement, the official bodies in Germany and Europe (GAC and EQAR) approved that the activities of AQAS in accreditation are neither limited to specific academic disciplines or degrees nor a particular type of higher education institution.

II. Assessment procedure

This report is the result of the external review of the Master’s programme in “Erasmus Mundus Master of Science in Public Sector Innovation and eGovernance” (PIONEER) (M.Sc.) offered by the University of Münster (Germany), together with Katholieke Universiteit Leuven (Belgium), and the Tallinn University of Technology (Estonia).

1. Criteria

The study programme is reviewed in accordance with the criteria of the European Approach for Quality Assurance of Joint Programmes, which was agreed with the Ministers of the European Higher Education Area in May 2015.

2. Approach and methodology

Initialization of the procedure

In April 2023, the University of Münster mandated AQAS to implement the accreditation procedure using the European Approach. For this purpose, the consortium produced a self-evaluation report (SER) describing the programme in its entirety; this report was submitted in April 2023, together with the necessary documents, the relevant appendices on the study programme.

AQAS analysed the self-evaluation report for completeness, comprehensibility, and transparency. The accreditation procedure was formally initialised at the meeting of the AQAS Standing Commission in May 2023.

The final version of the self-evaluation report was submitted in October 2023.

Nomination of the panel of experts

The composition of the panel of experts follows the stakeholder principle and the requirements described in the European Approach. As a result, representatives from the relevant discipline(s), the labour market and the student body are involved. In addition, AQAS follows the Principles for the Selection of Experts of the European Consortium for Accreditation (ECA).

The AQAS Standing Commission nominated the panel of experts in September 2023. AQAS informed the consortium about the members of the panel of experts, and the consortium did not express any concerns about the composition of the panel.

Preparation of the site visit

Prior to the site visit, the experts reviewed the self-evaluation report and submitted a short preliminary statement containing outstanding issues and any potential need for additional information. AQAS forwarded these preliminary statements to the consortium and the members of the panel in order to increase transparency of the process and the upcoming discussions during the site visit.

Site visit

Following a review of the self-evaluation report, the site visit was conducted from 27 – 28 February 2024 at the campus of University of Münster in Germany. During the site visit, the experts held separate discussions to interview various stakeholders, e.g. the university management, programme directors, teaching staff and non-academic staff from the consortium, as well as students. The site visit ended with a presentation of the preliminary results obtained by the expert group to the representatives of the universities.

Preparation of the experts' report

After the site visit, the panel of experts prepared the following report assessing the fulfilment of the criteria set out in the European Approach for Quality Assurance for Joint Programmes. The report included a recommendation to the AQAS Standing Commission. The report was sent to the universities for comment.

Decision

The experts' report, together with the university's comments, is the basis for the AQAS Standing Commission's decision on the accreditation of the programme. Based on these two documents, the Standing Commission made its decision on accreditation in May 2024. AQAS forwarded the decision to the universities, and published the report on its website as well as the DEQAR database.

III. General information

III.1 Introduction

The Erasmus Mundus programme "Public Innovation and E-Governance" (PIONEER) is designed as a joint master's programme with three higher education institutions in the consortium.

According to the self-evaluation report, the **University of Münster** is among Germany's largest universities. It is stated that the university has a prestigious reputation in North Rhine-Westphalia and beyond, and it maintains close connections with society and the scientific community. With approximately 45,700 students and 5,300 academics, it offers excellent research opportunities, high-quality teaching, support for junior researchers, and an attractive living environment in Münster city.

The University of Münster has an institutional structure comprising 15 faculties, covering a wide range of disciplines, along with numerous scientific centres and institutes. In research, the university is recognized for its

work in humanities, social sciences, natural sciences, and life sciences, encompassing both basic and applied research. In terms of internationalization, the University of Münster offers an increasing number of international degree and doctoral programs, welcoming approximately 750 international visiting academics and 3,500 international undergraduate and doctoral students annually from 130 countries. Efforts to enhance internationalization include optimizing international degree programs, facilitating exchanges for students, researchers, and staff, and providing opportunities for students to gain international experience through courses and workshops, even while in Münster.

At the University of Münster, the PIONEER programme is allocated to the Department of Information Systems, housed within the School of Business and Economics. Comprising 11 professors, 18 postdoctoral faculty members, and 43 doctoral candidates, it is stated that it focuses on the design, implementation, and evaluation of intra- and inter-organizational information systems, bridging Business Administration with Computer Science.

The department aims to provide a comprehensive international education in business and IT, covering various domains from public administration to telecommunications. The School of Business and Economics, structured by its centres, including Marketing, Accounting, Finance, Management, Applied Research in Economics, Quantitative Economics, Economic Theory, Information Systems, and Interdisciplinary Economics, facilitates research and teaching coordination.

The faculty emphasizes applied problem-solving approaches through theoretical and empirical projects, fostering collaboration with industry, government, and administration. It is supported by a significant number of IT technicians and administrators who assist in academic and student activities. The School provides various support services, including career guidance, international exchange programs, and a dedicated Alumni Club, AlumniUM, which connects students with graduates, assists in job applications, and offers mentoring programmes for students seeking industry connections.

According to the SER, **Katholieke Universiteit Leuven** offers a wide range of international master's programmes supported by high-quality interdisciplinary research as a leading European research university and co-founder of the League of European Research Universities (LERU). The university is situated in Leuven with additional campuses in ten other Belgian cities.

KU Leuven's mission focuses on research, education, and service delivery, with a commitment to international excellence in each domain. In terms of study and teaching, the university provides students with opportunities for personal and societal development within a historical yet modern environment. It emphasizes educational quality assurance and enhancement, with a diverse student population comprising various degree levels and emphasizing research-driven knowledge, skills, attitudes, and values.

In research, KU Leuven's numerous research groups operate within an international context, addressing societal challenges and contributing to scientific communication and social debates. The university's culture of dialogue fosters interdisciplinary research and societal impact. Regarding internationalization, KU Leuven offers a wide range of bachelor's and master's programs, including English-language tracks and Erasmus Mundus degree programs, in partnership with universities in Belgium and abroad. This international dimension enriches the academic experience and prepares students for a globalized world.

The PIONEER programme is allocated to the Faculty of Social Sciences at KU Leuven which hosts around 3,000 students, 50 professors, and 200 research assistants. According to the SER, its mission is to analyse and influence societal trends through education and research, closely aligning programmes with current events. The faculty offers modern infrastructure, including advanced teaching technology, a dedicated library, media centre, and interactive digital learning environment.

The programmes emphasize international orientation and draw on the scientific research conducted by various faculty research departments. Scholarly work spans from governmental policy reports to articles in prestigious

journals. Additionally, student guidance is a key focus, with professors and study counsellors providing support.

The PIONEER programme is coordinated by the Public Governance Institute within the Faculty of Social Sciences. This institute has extensive experience in politics, administration, and public policies at various levels. It aims to contribute scientifically to improving policy-making, organization, and management of public administrations, with a focus on citizen, political party, and government roles.

Another research institute involved is the Leuven Institute for Research on Information Systems (LIRIS), part of the Department of Decision Sciences and Information Management in the Faculty of Business and Economics. LIRIS conducts fundamental and applied research on information and information systems in organizations, covering areas such as information architecture, data management, business processes, and intelligent information systems.

Tallinn University of Technology (TalTech) traces its origins back to 1918 when the Estonian Technical Society initiated technical courses. Today, TalTech is a prominent institution in Estonia, boasting over 2,000 employees, including 1,200 teachers and researchers, and nearly 70,000 alumni. It is recognized as the leading provider of engineering and economics education, as well as a leader in engineering sciences and smart technologies. TalTech's mission is emphasizing critical and creative thinking, practical actions, and cooperation.

TalTech offers contemporary, research-based education at all levels, with a focus on scientific methods, internationalization, and interdisciplinary approaches. It comprises four schools, Estonian Maritime Academy, and 20 departments, delivering education in engineering, technology, information technology, economics, science, and maritime studies. The university is responsible for providing university-level education in various fields under a contract with the state.

In terms of teaching methodology, it is said that TalTech emphasizes e-learning and hybrid teaching methods, integrating traditional lectures with interactive approaches to develop students' practical skills. Research at TalTech is supported to align with the university's strategic objectives and Estonia's Research and Development and Innovation strategy. The university also prioritizes internationalization, offering a variety of study programs, including joint degree programs, to meet the needs of stakeholders and enhance graduates' international competitiveness.

At TalTech, the PIONEER programme is allocated to the Ragnar Nurkse Department of Innovation and Governance, situated within TalTech School of Business and Governance, an interdisciplinary research center. It brings together expertise in global governance, public administration, technology and eGovernance, fiscal and innovation policies, and philosophy and ethics, with a diverse team of researchers from Estonia and worldwide, including four Estonian National Research Award winners.

With a faculty comprising a variety of academic positions, the department ensures adherence to academic regulations and strives for gender and minority balance. Nearly half of the department's faculty are international members, a unique feature in Estonian social science institutions. Visiting professors and lecturers, often funded by EU structural funds or other sources, enrich the academic environment.

Established in 1992, the department offers study programmes at the bachelor, master, and PhD levels, focusing on innovation and public administration. It plays a central role in TalTech's curricula, offering courses that integrate natural and social sciences, fostering multidisciplinary approaches in education and research.

The department's mission is to provide comprehensive education in public administration, grounded in research, and to serve society through research, teaching, and development activities. Its modern facilities,

including classrooms equipped with advanced technology and ample study spaces, support various teaching formats and ensure student comfort.

III.2 Basic information

Full name of the programme	Erasmus Mundus Master of Science in Public Sector Innovation and eGovernance
EQF level	7 (Master's Degree)
Degrees awarded	Master of Science
Number of ECTS points	120 ECTS
ISCED field(s) of study	/

IV. Assessment of the study programme

1. Eligibility

1.1 Status

The institutions that offer a joint programme should be recognised as higher education institutions by the relevant authorities of their countries. Their respective national legal frameworks should enable them to participate in the joint programme and, if applicable, to award a joint degree. The institutions awarding the degree(s) should ensure that the degree(s) belong to the higher education degree systems of the countries in which they are based.

Description

As outlined in the SER, the **University of Münster** is an institution of higher education according to paragraph 1 of the “Gesetz der Hochschulen des Landes Nordrhein-Westfalen” (Higher Education Act of the state of North Rhine-Westphalia) from 16 August 2019. The University of Münster is legitimised to offer joint programmes together with foreign universities and to award joint degrees according to HG §§ 60 (2) and 66 (1).

For **KU Leuven (KUL)**, the SER describes that it is supposed to fulfil its mission of public interest in the field of higher education, scientific research and societal and scientific services (Article II.18 Flemish Code of Higher Education). KU Leuven is considered a private legal person (following the publication of its Charter of foundation in accordance with the Act of August 12, 1911 Article 1 § 2.1). Based on Article II.171 Flemish Code of Higher Education, KU Leuven is allowed to organize their degree programmes as joint programmes with other universities in or outside the Flemish Community.

Following the information given in the SER, the **Tallinn University of Technology (TalTech)** was granted the status of a university in public law on 12 January 1995 by the Universities Act. On 4 June 2014, the Estonian parliament adopted the Tallinn University of Technology Act that defines the role of TalTech in the Estonian education and research landscape as well as the institutional management structure. The Act took effect on 1

September 2014. TalTech is legitimised to offer joint programmes together with foreign universities and to award joint degrees according to § 11 and § 19 of the Estonian Higher Education Act.

Experts' evaluation

The experts testify that the documentation provided and the follow-up discussion during the site visit clearly demonstrate the full compliance with the standard. The analysis of the annexes shows the full institutional legitimacy and compliance within the respective national frameworks. All partners in the consortium are officially recognised as higher education institutions by the relevant authorities. This has been clarified by the Rhine-Westphalia Higher Education Act (for University of Münster), the Flemish Code of Higher Education (for KU Leuven), and the adaptation of the Tallinn University for Technology Act by the Estonia parliament (for TalTech). Furthermore, the self-evaluation provides evidence that all consortium members are allowed to carry out joint degree programmes and following the above-mentioned documents the master's programme belongs to the respective degree systems of the participating countries.

Conclusion

The criterion is fulfilled.

1.2 Joint design and delivery

The joint programme should be offered jointly, involving all cooperating institutions in the design and delivery of the programme.

Description

The Master's programme under review was established as an Erasmus Mundus programme and is jointly organised by the KU Leuven, the University of Münster and the Tallinn University of Technology. The KU Leuven acts as the coordinating institution of the consortium that is composed of representatives from the three participating institutions.

According to the SER, the concept of the study programme has been jointly developed by the three partner universities. The course programme shall reflect the strengths of the partner universities. It is built upon the involved disciplines of the three universities as follows:

Subjects University	Public Governance	Information Sciences	Technology and Digital Evolutions for the Public Sector	Public Sector Innovation and eGovernance
KU Leuven (30 ECTS)	Semester I: Introduction			
University of Münster (30 ECTS)	Semester II: specialization IS and Information			
Tallinn University of Technology (30 ECTS)	Semester III: integration and specialization			
Master Thesis (30 ECTS)	Semester IV: Master Thesis			



With the aim to create insight into the different elements of the programme and thus interdisciplinarity, students have to move from university to university so that all three partners are equally involved in the delivery of the programme in semester 1 to 3 and also in the jury for the Master's thesis. This structure shall guarantee the inclusion of the expertise of KU Leuven in Public Administration, Public Management, Information Systems and Management Informatics, as well as of the expertise in Information Management and Information Systems of University of Münster, and in eGovernance and the associated applications of TalTech.

According to the SER, the promotion of the programme and recruitment of students are organised jointly. The joint Master's degree is delivered upon successful completion of the programme by all three partner universities as one diploma.

Experts' evaluation

Based on the on-site discussions and observations of the experts, it is evident that the PIONEER programme demonstrates a clear joint design involving all partners. The discussions highlighted that KU Leuven is perceived as the primary driving force administratively within the consortium. However, it was also apparent that the University of Münster and TalTech actively and openly contribute to the ongoing development of the programme, making all partner equal. A notable example of this collaborative effort is seen in the proactive approach taken by all partners to instigate changes within the curriculum. The coordinators of the programme meets up to three times a year to exchange on the overall strategy of the programme, and, if necessary, on ad-hoc problems. Those discussions reveal a shared commitment to enhancing the programme's structure and content, with input from all participating institutions. For instance, a module has been moved from an earlier phase in the curriculum to the second semester due to the fact that the content has changed including a shift of competencies. Additionally, the reformation of the internship module, which is discussed further below (see Chapter 3.1), further exemplifies the collective effort to adapt and improve the programme based on a shared vision and feedback from internal and external stakeholders.

Overall, the discussions on-site provided clear evidence of a joint design and delivery involving all partners, with KU Leuven, University of Münster, and TalTech actively contributing to the continuous development and improvement of the PIONEER programme. This collaborative approach is essential for ensuring the programme's relevance, sustainability, and alignment with the evolving needs of higher education and the labour market.

Conclusion

The criterion is fulfilled.

1.3 Cooperation agreement

The terms and conditions of the joint programme should be laid down in a cooperation agreement. The agreement should in particular cover the following issues:

- *Denomination of the degree(s) awarded in the programme*
- *Coordination and responsibilities of the partners involved regarding management and financial organisation (including funding, sharing of costs and income etc.)*
- *Admission and selection procedures for students*
- *Mobility of students and teachers*
- *Examination regulations, student assessment methods, recognition of credits and degree awarding procedures in the consortium.*

Description

The cooperation agreement of the three partner universities covers the regulation of aspects such as denomination of the degree awarded in the programme, coordination and responsibilities of the partners regarding management and financial organisation (Section 6: Financial Arrangements), admission and selection procedures for students (Section 3: Admission Criteria, recruitment and selection), mobility of students and teachers, student assessment methods, recognition of credits and degree awarding procedures.

The examination regulations of the programme, which are published, i.e., on University of Münster's website, cover regulations on students' assessment, recognition of knowledge and skills such as study achievements, examinations and/or working experience (in the sense of additional skills and qualifications obtained in ways other than academic study), and the degree awarding procedures of the consortium.

Experts' evaluation

The experts have analysed the PIONEER consortium agreement, which serves as the key evidence in the analysis. It can be testified that under article 17 of the agreement it is specified that a joint degree is awarded as "Erasmus Mundus Master of Science in Public Sector Innovation and eGovernance". This degree is recognised by the legal authorities in each of the consortium partner countries. The article outlines that the responsibility of issuing and printing the certificates and diploma supplements lies with the coordinating university, namely KU Leuven. The evidence provided with the documentation demonstrates that the diploma supplements adhere to European guidelines.

One of the key committees in the PIONEER programme is the academic steering committee. The responsibilities of the committee and its composition are defined under article 23 of the consortium agreement. The experts conclude that an effective coordination is ensured through the academic steering committee, comprising representatives from each party. Roles of the consortium coordinator, academic, and administrative coordinators at each partner institution are delineated. The committee is vested with responsibilities encompassing administrative, legal, educational, and financial matters, ensuring smooth management and operation of the programme.

The consortium agreement furthermore includes under section 4 the admission criteria, and recruitment and selection procedures. The experts conclude that fixing these aspects in the agreement ensures transparency and fairness in student selection. The administration of these processes lies with KU Leuven's admissions office, while the selection process is conducted by the academic steering committee. The agreement defines the baseline on the admission criteria for the PIONEER programme. All stakeholders have confirmed that admission criteria defined in the agreement are congruent with the admission processes in practice. The language requirements and additional qualifications for applicants are clearly defined, ensuring the integrity of the admission process.

The cooperation agreement (Article 7) clearly demonstrates that the programme facilitates student mobility across partner institutions, with clear guidelines for semester-wise transitions. Students commence their studies at KU Leuven and subsequently move to Münster and Tallinn for subsequent semesters. The experts have clearly seen that this academic movement fosters a diverse and enriching academic experience. The experts learned that the agreement emphasises a coordinated course registration across the consortium partners, which in fact facilitates a seamless mobility, although students have to get used to three different academic systems with the usual obstacles at the beginning (see Chapter IV.6).

Section 2 of the agreement establishes joint examination regulations, ensuring structural consistency in assessment practices across all three partners. It delineates the organisation of examinations, appeals procedures, and monitoring of study progress with a special focus on re-taking options. Clear guidelines for the master's thesis, including supervision, defence, and evaluation, ensure standardisation across consortium

partners. In addition, the agreement outlines the recognition of credits and the awarding of degrees based on predetermined criteria. All of which ensures a stable and solid structural framework that allows all partners in the consortium a consistent implementation of the PIONEER programme.

Conclusion

The criterion is fulfilled.

2. Learning outcomes

2.1 Level

The intended learning outcomes should align with the corresponding level in the Framework for Qualifications in the European Higher Education Area (FQ-EHEA), as well as the applicable national qualifications framework(s).

Description

The intended learning outcomes are outlined in the examination regulations as follows: the Master's programme builds on the knowledge acquired in a prior undergraduate degree programme. In addition to conveying the academic fundamentals of the subject of study, it aims at providing students with the knowledge, skills and methods necessary to meet the academic and professional standards in the fields of Public Management, Information Systems and eGovernance. Students are to be trained to evaluate complex academic problems in an independent and responsible manner and apply practical methods to solve them. Thus, graduates of the programme shall have acquired the necessary knowledge and skills for their prospective professional field, particularly in the areas of research and teaching.

In the SER, these learning outcomes are specified as:

1. to provide students with specialised and advanced knowledge in public sector innovation and the role of Information and Communication Technology (ICT) and technological evolutions in that innovation;
2. to integrate specialised knowledge from more technical fields with the Public Administration field as part of an integrated answer to actual and future challenges of the public sector;
3. to introduce core concepts about Public Administrations/governance and to create awareness of the specificities of the public sector in the more technical fields;
4. to gain insight and competences contributing to innovations to tackle challenges public administrations are facing;
5. to strengthen the students contributing to ICT-enabled governments and to innovative, inclusive, reflective and sustainable societies;
6. to contribute to the innovation of worldwide public sector organizations by delivering experts in the matter;
7. to meet new societal needs by generating and using emerging technologies in the public sector;
8. to advance critical thinking on the consequences of technological change in the public sector and beyond.

The programme's learning outcomes and the core qualifications are summarised in four learning goals which are: (1) sophisticated knowledge, (2) trained in research, (3) good communicator, and (4) responsible agent. These shall qualify the graduates to assess and properly configure sophisticated knowledge for use in companies and public administration. Also, they shall be trained in research in general as well as specific methodologies and shall have the capabilities of communicating in a scientific or business environment.

The universities state in the SER that these learning outcomes and goals correspond to level 7 of the European Qualifications Framework (QF-EHEA) and thus the according level in the national qualifications' framework of Belgium, Estonia, and Germany.

Regarding the student body, the consortium states that it tries to create an interdisciplinary group of students. Since the start of the programme, students with undergraduate degrees in the following areas were admitted to the programme: Management, Information Systems, International Relations, Engineering, Economics, Political Science, International Business Administration, Sociology, Communication Sciences. In addition, the SER explains that PIONEER receives applications from different parts of the world.

Experts' evaluation

Based on the documentation provided and the follow-up discussions with all relevant stakeholders on-site, the experts confirm that the master's programme "Public Innovation and e-Governance" continues to provide students with advanced knowledge, skills, and methods necessary to meet academic and professional standards in the fields of Public Management, Information Systems, and e-Governance.

After reviewing the examination regulations and the self-evaluation report, it is clear that the intended learning outcomes on the programme level correspond well with the level 7 of the Framework for Qualifications in the European Higher Education Area (FQ-EHEA) and the master's level of the national qualifications frameworks of the consortium countries. The programme's goals are clearly articulated and encompass both theoretical knowledge and practical skills relevant to the fields of Public Administration and Information Technology, such as specialised knowledge in public sector innovation, integration of technical fields with Public Administration, and fostering critical thinking on the consequences of technological change.

The four learning goals outlined by the programme—sophisticated knowledge, research training, effective communication, and responsible agency—align with the level 7 expectations of the FQ-EHEA and national qualifications frameworks. These goals adequately prepare graduates to assess and configure advanced knowledge for use in both corporate and public administration settings. The success stories of graduates support the adequacy of the programme's goals.

It is clear that the diverse student body comprising individuals from various academic backgrounds enriches the learning environment and promotes interdisciplinary collaboration. The inclusion of students with undergraduate degrees in Management, Information Systems, International Relations, Engineering, Economics, Political Science, and other disciplines aligns with the programme's goal of fostering a holistic understanding of public innovation and e-Governance. Furthermore, the international representation enhances cultural diversity and global perspectives within the cohort.

Conclusion

The criterion is fulfilled.

2.2 Disciplinary field

The intended learning outcomes should comprise knowledge, skills, and competencies in the respective disciplinary field(s).

Description

The programme aims at further qualifying its students in the disciplinary fields of Public Administration, eGovernance, Information Science, Information Management and Public Sector Innovation and offering them an

extension and deepening based on the knowledge and skills from their undergraduate studies. By this, they shall be qualified to find employment in public bodies dealing with the digital transformation and implementation of e-Government and eGovernance. The graduates shall thus be able to reflect and design digital processes and services from an interdisciplinary perspective. Besides the public sector at regional, national or European/international level, private companies and other organisations supporting the digital transformation of the public sector are considered as possible employers for the programme's graduates.

Experts' evaluation

The experts have analysed the intended learning outcomes on the programme level, the curriculum, and its relation between the ILOs on the programme level and on the course level. As a source of evidence, the experts rely on the self-evaluation report, the module descriptors for the whole programme, and the discussions on-site. Based on that, the experts conclude that the programme adequately provides students with specialised and advanced knowledge in public sector innovation and the role of ICT. It aims to integrate this knowledge with Public Administration to address current and future challenges faced by the public sector. The interdisciplinary approach, evidenced by the diverse student body, enriches the learning experience and facilitates the integration of technical concepts into the public administration domain.

Furthermore, the programme effectively introduces core concepts of Public Administration and governance while creating awareness of the specificities of the public sector in technical fields. The emphasis on innovation and the application of emerging technologies to tackle public sector challenges is commendable. Furthermore, the focus on contributing to ICT-enabled governments and fostering innovative, inclusive, reflective, and sustainable societies reflects the programme's commitment to societal impact.

Based on the analysis of the intended learning outcomes, it can be stated that the programme equips students with advanced knowledge in disciplines such as Public Administration, eGovernance, Information Science, Information Management, and Public Sector Innovation. It aims to build upon the foundational knowledge acquired during the bachelor's programmes, offering an extension and deepening of understanding. The curriculum appears comprehensive, covering key theoretical concepts, principles, and methodologies relevant to the field. Modules such as digital transformation, e-Government implementation, and interdisciplinary perspectives on digital processes demonstrate a commitment to providing students with a robust theoretical framework.

In addition to theoretical knowledge, the programme successfully develops practical skills necessary for success in the public sector and related sectors. Based on the feedback of the students and graduates, it can be observed that students acquire competencies in areas such as project management, data analysis, policy evaluation, and digital service design. The emphasis on practical application through case studies, internships, and collaborative projects enhances the development of these skills throughout the study programme. Moreover, the interdisciplinary approach fosters the integration of skills from various disciplines, preparing students for the complex challenges of real-world contexts.

Also, the programme cultivates competencies essential for addressing contemporary issues in public administration and e-Governance. These include critical thinking, problem-solving, communication, and adaptability. Through interactive learning experiences, students are encouraged to engage critically with theoretical concepts, analyse complex problems, and propose innovative solutions. Furthermore, the emphasis on interdisciplinary collaboration enables students to develop the ability to work effectively in diverse teams and navigate the intersection of multiple disciplinary perspectives.

Conclusion

The criterion is fulfilled.

2.3 Achievement

The programme should be able to demonstrate that the intended learning outcomes are achieved.

Description

The PIONEER programme emphasizes the development of students' scientific capabilities through various examination types. These examinations assess the achievement of learning goals such as sophisticated knowledge, research skills, communication proficiency, and responsibility. Case studies and written exams measure sophisticated knowledge, while seminar papers and the master thesis assess research skills. Communication proficiency is evaluated through paper defenses and presentations. Students also critically reflect on their findings to fulfil the responsibility goal.

PIONEER aims to educate students as generalists in public management, information systems, and eGovernance, catering to a diverse student body. Assessments include written exams, case studies, presentations, and a final thesis. Special student support addresses diverse cultural and educational backgrounds.

Graduates are prepared for the international job market, particularly in public bodies and private organizations involved in digital transformation and e-Government. The interdisciplinary perspective gained prepares them to design digital processes and services. The programme's relevance is underscored by commitments from public bodies and private organizations. Prospective students should be interested in these career directions.

The data from August 2023 regarding PIONEER alumni presents an overview of their achievements and career trajectories. With a total of 77 graduates, the cohort reflects a balanced gender distribution. Geographically diverse backgrounds contribute to a broad level of experiences, with the majority originating from Europe, followed by representations from Asia, South America, North America, Africa, and Australia. Notably, an overwhelming 94.8% of alumni completed their studies within the designated two-year timeframe.

While, according to the SER, a significant portion of graduates is employed in Europe, indicating alignment with their geographical origins, the presence of alumni across North America, Latin America, and Asia is visible in the documentation.

Diverse career paths are evident among alumni, spanning various sectors. A considerable number find employment in universities, public sector organizations, private sector firms, and NGOs, showcasing versatility. Noteworthy positions held by graduates in influential governmental and international organizations such as the US House of Representatives, European Central Bank, and the Office for Science and Technology of the Embassy of France in the USA highlight their impact on global governance and policy.

Furthermore, the success of PIONEER graduates extends into the private sector, with notable placements in renowned companies like Capgemini Invent, Accenture, Deloitte, and Ernst & Young. Additionally, contributions to academia and research are notable, as evidenced by positions in institutions such as the e-Governance Academy and TalTech.

Experts' evaluation

Based on the programme's structure, teaching and learning methodologies, student support mechanisms, and the outcomes reflected in the performance and career trajectories of its alumni, the experts have analysed the achievement of the intended learning outcomes on the programme level of the PIONEER programme. The experts testify the achievement of the intended learning outcomes on the programme and according to level 7 of the EQF. During the on-site visit, access has been granted to examinations and master's theses which clearly demonstrated the stringent application of assessment modalities in line with the intended learning outcomes on the programme level.

From the expert's perspective, the PIONEER programme is crafted to enhance students' scientific capabilities across multiple dimensions, emphasising the cultivation of sophisticated knowledge, research proficiency, effective communication skills, and a strong sense of responsibility. The curriculum is structured to encompass a variety of assessment methodologies, including written examinations, case studies, presentations, and culminating with a comprehensive final thesis, all meticulously designed to evaluate the intended learning outcomes on the programme level.

The site visit has shown that the PIONEER programme demonstrates a commendable commitment to diversity, recognising and accommodating the unique cultural and educational backgrounds of its student body. Through specialised support mechanisms tailored to individual needs, the programme fosters an inclusive learning environment that celebrates diverse perspectives and experiences. Moreover, it can be testified that the programme instils a profound sense of responsibility in its students, requiring them to critically reflect on their research outcomes and consider the broader societal implications of their work. This emphasis on ethical conduct and social consciousness underscores the programme's commitment to producing graduates who are not only proficient in their respective fields but also mindful of their roles as agents of positive change. These facts are underpinned by the broad variety of these topics all of which are relevant to the discipline.

In addition, effective communication takes an important role within the PIONEER programme, with assessments such as paper defences and presentations serving as opportunities for students to articulate their ideas and findings cogently. By honing their ability to convey complex concepts with clarity and precision, students not only enhance their academic prowess but also develop essential skills for effective collaboration and leadership in professional settings.

In addition, the experts state that the success of PIONEER graduates in the international job market stands as a proof to the programme's efficacy in preparing students for diverse career pathways. Graduates demonstrate a holistic skill set of interdisciplinary perspectives and are well-equipped to navigate the complexities of digital transformation and e-Government initiatives with confidence and competence. The programme's high employability rate and diverse career trajectories underscore its relevance and impact.

Conclusion

The criterion is fulfilled.

2.4 Regulated professions

If relevant for the specific joint programme, the minimum agreed training conditions specified in the European Union Directive 2005/36/EC, or relevant common trainings frameworks established under the Directive, should be taken into account.

The joint degree is exempt from the European Union Directive 2005/36/EC. For this reason, the criterion is not applicable.

3. Study programme

3.1 Curriculum

The structure and content of the curriculum should be fit to enable the students to achieve the intended learning outcomes.

Description

As indicated in the figure below, the curriculum contains the following educational blocks of 30 credit points (CP) each semester: Introduction at the KU Leuven, Information Science at the University of Münster, eGovernment and eGovernance at the Tallinn University of Technology, and Master’s thesis. As outlined in the SER, the curriculum is structured in detail as follows:

Year 1		
<p>KU Leuven [30 ECTS] <i>Basics of Public Administration</i></p> <p><u>Compulsory courses</u> [4 ECTS] – Public Governance, Administration and Society [8 ECTS] – Public Innovation [6 ECTS] – Digital Public Governance [6 ECTS] – Business Information Systems [6 ECTS] – Integrated Research Seminar</p> <p style="text-align: center;"><i>September - January</i></p>	<p>Observational internship</p> <p><u>Compulsory internship</u> [Pass/fail] – Platforms and Digital Service Ecosystems</p> <p style="text-align: center;"><i>February - March</i></p>	<p>University of Münster [30 ECTS] Information Systems Sciences and ICT</p> <p><u>Compulsory courses</u> [6 ECTS] – Information Systems Application [6 ECTS] – Platforms and Digital Service Ecosystems [6 ECTS] – Project Management [6 ECTS] – Integrated Research Seminar</p> <p><u>Elective courses</u> Students choose one course from the list [6 ECTS] – Advanced Concepts in Software Engineering [6 ECTS] – Enterprise Architecture Management [6 ECTS] – Information Management Theories [6 ECTS] – Information Security</p> <p style="text-align: center;"><i>April - August</i></p>
Year 2		
<p>Tallinn University of Technology [30 ECTS] eGovernment and eGovernance</p> <p><u>Compulsory courses</u> [6 ECTS] – Technology, Society and the Future [6 ECTS] – Entrepreneurship and Technology Management [6 ECTS] – Public Sector Innovation Lab [6 ECTS] – Integrated Research Seminar</p> <p><u>Elective courses</u> Students choose one course from the list [6 ECTS] – Governing the Digital Age [6 ECTS] – Environmental and Social Externalities of Technologies</p> <p style="text-align: center;"><i>September - January</i></p>	<p>Master's Thesis [30 ECTS] Voluntary internship</p> <p>Study internship Research Internship</p> <p style="text-align: center;"><i>February- September</i></p>	

The first semester, held at KU Leuven, comprises of the five compulsory course units “Business Information Systems”, “Public Governance, Administration and Society”, “Public Innovation”, Integrated Research Seminar”, and “Digital Public Governance”. By this, the students shall start with courses on Public Administration and Management, a general introduction in the use of information systems in the public sector and an introduction into eGovernance practices. The two research institutes involved are the KU Leuven Public Governance Institute (PGI) and the Leuven Institute for Research on Information Systems (LIRIS). They shall offer courses by lectures, self-study, and interaction during the courses.

Based on the students’ feedback, an internship between the first and the second semester is newly introduced which shall combine the theoretical aspects with practical insides and is supposed to support the employability.

In the second semester, the students move to Münster. This semester comprises of the four compulsory courses “Information Systems Application”, “Project Management”, “Platforms and Digital Service Ecosystems”, and “Integrated Research Seminar”. These modules are supplemented by the following elective components: “Enterprise Architecture Management”, “Information Management Theories”, “Advanced Concepts in Software Engineering”, and “Information Security”. Thus, the focus shall be laid on enabling the students to assess and properly configure sophisticated information technology for use in companies and public

administrations. Moreover, this part is to be training students for a career in both business and research/teaching in the area of information systems and facilitates entry into a corresponding doctoral programme. Students shall therefore receive in-depth scientific knowledge, skills, and competencies in the field of information systems with regards to public administration and management.

In the third semester in Tallinn, the curriculum comprises of the four compulsory courses “Technology, Society and the Future”, “Entrepreneurship and Technology Management”, “Public Sector Innovation Lab”, and “Integrated Research Seminar” as well as two electives (“Governing the Digital Age” or “Environmental and Social Externalities of Technologies”). The general objective of the studies is to introduce the role and impact of technology and innovations on both public sector (public administration) developments as well as socio-economic development, to explain the concept of public sector innovation and to study the essence of eGovernment and e-governance with the factors influencing these domains. Technology as such and its challenges for a society are to be deliberated and its potential negative effects shall be critically evaluated. In the final semester, the students write their master’s thesis.

The curriculum’s underlying general principle is described in the SER as follows: students in Leuven shall receive expertise in performing case studies, conducting in-depth interviews, and qualitative data-analysis. In Münster, the students’ competences in literature study shall be deepened. Furthermore, the students shall get theoretical insights into information management research methodologies and more practical experience in conceptual modelling techniques. In Tallinn, the theoretical experience on case studies, interviews and qualitative data analysis shall be applied practically on concurrent issues on e-governance in collaboration with national and international practitioners. Thus, during the first semester, the students shall complete the ‘Public Innovation’ course in which (academic and professional) guest lectures and field visits are supposed to provide an overview of topics in the different domains. This course is described as being organised to create a shared knowledge base among the students with different backgrounds in the first place; secondly, to give the students an insight into concrete cases in this field; thirdly, to introduce students to a number of key persons and organisations involved in the programme.

Experts’ evaluation

The analysis of the curriculum shows clearly that the PIONEER programme offers a comprehensive interdisciplinary curriculum spread across four semesters and three highly established academic institutions. The overarching goal of the programme is to equip students with a deep understanding of public administration, information systems, and the evolving landscape of e-governance innovation, thereby preparing them for diverse career paths in the public and private sectors, as well as academia.

The experts testify that the initial semester at KU Leuven provides a solid foundation for students. It is clear that the inclusion of courses facilitated by renowned higher education institutions and research centres such enriches the academic exposure. Transitioning to Münster for the second semester, the curriculum maintains its accuracy with four compulsory courses supplemented by elective components. The emphasis during that phase underscores the programme’s focus on preparing students for diverse career paths, be it in the sector or academia. The third semester in Tallinn presents a holistic exploration of the intersection between technology, innovation, and public sector dynamics. In that phase, students will delve into contemporary issues and emerging trends, critically analysing their implications on governance and societal development.

The experts have learned that the programme started as an application focused programme in the early stage of the programme, and then further developed into the current status of the curriculum. Special attention was drawn during the site visit to two specific aspects, namely the integrated research seminar and the observational internship (between the first and second semester). The current curriculum strives to put an emphasis on bridging theoretical knowledge with practical application (through the observational internship), while fostering the research skills of students from an early stage on of the curriculum in the integrated research seminar

(with the idea of leading to the master's thesis throughout the programme). The discussions on-site showed that there are currently problems for students in finding suitable internship spots. The experts follow the explanations because it is evident that the spot for the internship in the sequence of the programme is not beneficial. The programme coordinators plan to reshape the internship module as the implementation of real-case scenarios coming from the sector, and students will have to find solutions and pitch them to the sector. From the expert's perspective, this is a very useful idea because working on real-case scenarios provides students with the chance to build relationships, networks with sector experts, and gain insights into current trends and best practices, and emerging technologies in public administration and e-governance. The interrelation of the internship and the integrated research seminar was one of the major points of discussion during the site visit and its content throughout the whole sequence of the programme. The initial idea of this essential part of the programme is to place a strong emphasis on developing students' research skills throughout the curriculum in the light of a discipline-related topic (e.g., e-health). Students will be placed into groups of three or four students according to that topic and will focus on the topic from different perspectives according to the expertise of the university students are studying. As discussed above, the consortium now plans to integrate real-case scenarios into the integrated research seminars. By doing so, it is expected that students will combine the interesting holistic approach during the research integrated seminar with very applied topics coming from the sector. Consequently, the experts believe that this will be a real add-on to the programme and fully support the programme coordinators in implementing the above outlined changes (**Finding 1**).

The second line of discussion on the integrated research seminar was about the heterogeneity of the student cohorts and their level of preparedness for advanced research. In the context of a master's programme encompassing a diverse cohort of students with varying backgrounds from their bachelor's studies, an early communication on basic research skills that are expected to hold at the beginning of the studies serve many crucial purposes. From an expert's point of view, by explaining students the baseline of fundamental research methodologies early on, a common starting point will be established. This will enable each student irrespective of the prior academic experiences to embark on their academic journey with a similar foundation. The experts want to underpin that students definitely possess advanced research skills at the end of studies, and the review of evidence with the review of final master theses made this very clear. However, it is believed that an early and more structured communication on the expected level of basic research skills plays an important role in building students' confidence as researchers, and will additionally smoothen the transition of the integrated research seminar remodulation (**Finding 2**).

The experts examined the curriculum of the PIONEER programme in-depth, and the analysis clearly demonstrates that each participating university lends its specialised knowledge to the curriculum. The curriculum has been carefully crafted to offer students a comprehensive understanding of the discipline. Its strength lies in its ability to present a diverse array of perspectives, empowering students to explore the complexities of public innovation and e-governance from multiple angles. While the curriculum focuses on the European perspective of the discipline, the experts believe that the integration of non-EU perspectives might be beneficial for the further development of the programme. Embedding non-EU viewpoints enriches the educational experience by offering a broader understanding of public innovation and e-governance within a global context. Given the challenges and opportunities faced by different nations, learning from diverse perspectives enhances students' capacity to analyse and address governance issues effectively. In congruence with the current student body (90 per cent of the student population coming from non-EU countries), an additional non-EU perspective within the curriculum might bring fresh insights and alternative approaches to tackling governance and innovation challenges. By incorporating such diverse viewpoints into the curriculum, students could be exposed to a wider array of innovative solutions and best practices from around the world, thereby enhancing their creativity and problem-solving skills. Therefore, offering an elective focused on non-EU perspectives in the curriculum could give students the opportunity to explore further specific regions or countries of interest. This elective could

explore case studies, guest lectures, or research projects centred on public innovation and e-governance in non-EU contexts (**Finding 3**).

Overall, the master's Programme in Public Innovation and e-Governance demonstrates a commendable commitment to providing a comprehensive education that prepares students for multifaceted roles. The selection of partners within the consortium and their specific expertise contribute to a high extent to a well-rounded curriculum.

Conclusion

The criterion is fulfilled.

3.2 Credits

The European Credit Transfer System (ECTS) should be applied properly and the distribution of credits should be clear.

Description

The programme is organised into modules, each incorporating various teaching and learning approaches such as lectures and seminars. Credit points allocated to students are determined by their anticipated workload, with each credit point equivalent to 25-30 hours of effort. Module credits range from 3 to 8 ECTS credits, depending on the content and intricacy involved. Furthermore, students will be evaluated through assessments like examinations, with these grades contributing to their overall module performance assessment.

Experts' evaluation

The module handbook for the whole curriculum offers solid evidence that the experts can confirm the easy accessibility of information to students. The curriculum's overview provides students and external stakeholders with a clear overview of the distributions of credits. The consortium applies throughout the curriculum the ECTS system. While the three consortium partners adhere predominantly to their own module handbook structure, the experts testify a comparable depth of information at all partners concerning the course descriptions. The distribution of credits follows clearly the ECTS User's Guide.

Conclusion

The criterion is fulfilled.

3.3 Workload

A joint bachelor programme will typically amount to a total student workload of 180-240 ECTS-credits; a joint master programme will typically amount to 90-120 ECTS-credits and should not be less than 60 ECTS-credits at second cycle level (credit ranges according to the FQ-EHEA); for joint doctorates there is no credit range specified.

The workload and the average time to complete the programme should be monitored.

Description

As depicted above, the workload of each unit is between 4 and 8 CP (ECTS). The total credit number of the programme is 120 CP, the standard duration is two years which consist of two semesters à 30 CP each. The

workload includes participating in the actual lectures and seminars as well as the time spent preparing and evaluating lectures, preparing for and taking exams, thesis and seminar work and, as the case may be, work placements. Regarding national regulations and the workload evaluation, the SER states that an effort of 25-30 hours is taken as a basis to earn one credit point at KU Leuven, 30 hours at University of Münster and 26 hours at Tallinn University of Technology. For the Master's thesis, a common workload of 26h/credit is defined.

Experts' evaluation

Based on the review of the documentation provided to the experts, it is evident that the consortium adheres to the standard. The curriculum overview outlined in the self-evaluation report indicates that students are required to earn 30 ECTS per semester and 60 ECTS credits per year, amounting to a total of 120 CP for the master's programme.

While there are variations among partners regarding the calculation of workload per credit point, there is consistent adherence to the expected workload. The discussion highlighted notable differences between higher education institutions within the consortium. However, it also demonstrated that workload monitoring efforts at each partner institution align with ECTS standards. This not only enhances transparency and comparability for current students but also ensures rigorous monitoring for future students.

The workload for each course encompasses essential elements such as contact hours, independent study hours, examinations, and the intended learning outcomes at the programme level. On-site discussions revealed that students have ample opportunities to provide feedback on workload throughout various stages of the quality assurance processes at each partner institution.

Conclusion

The criterion is fulfilled.

4. Admission and recognition

4.1 Admission

The admission requirements and selection procedures should be appropriate in light of the programme's level and discipline.

Description

Admission to the programme can be granted when the applicant (1) fulfils the general requirements at KU Leuven where the preliminary checks on completeness and eligibility are done; (2) has an undergraduate degree with a minimum amount of 180 CP (ECTS) in Public Administration, Social Science, Political Science, Information Systems, Information Science, informatics, Engineering, Business or Law; applications from other disciplines can be taken into consideration; (3) proves a good command of English, both spoken and written, as outlined in the examination regulations; (4) hands in a recommendation and a motivation letter. Applications are evaluated by the three universities together. The evaluation of practical eligibility and legal criteria are organised by all the institutions hosting the students, according to the rules of the institution, are detailed in the consortium agreement and available to the students via the website and in the student agreement.

The administrative admission process is carried out by the International Admissions Office of the KU Leuven. All files considered eligible are provided to the different universities to assess the candidates independently. Then, the three universities organize a meeting to discuss the 'longlist' of candidates from which around 30 applications will be selected for the shortlist. The consortium's Academic Steering Committee conducts online

interviews with every student from the short list to assess their motivation, to check their language skills and to ask for more information regarding their previous background. Based on the interview consensus will be reached about the main list, the reserve list, the non-scholarship list, and the non-selected list. According to the SER, this process has proven to be adequate for the consortium.

The general admission is granted at the KU Leuven, according to Belgian law. The students are also enrolled at the University of Münster and Tallinn University of Technology.

Experts' evaluation

After analysing the admission requirements and selection procedures, it is evident to the experts that the implemented instruments are designed to ensure that applicants meet the standards appropriate for the programme's level and discipline. Preliminary checks conducted by KU Leuven ascertain the completeness of application files and evaluate eligibility based on academic qualifications and language proficiency. Applicants are required to possess a bachelor's degree with a minimum of 180 credit points in specified fields such as Public Administration, Social Science, Political Science, Information Systems, Engineering, Business, or Law. While applications from other disciplines are considered, relevance to the programme's interdisciplinary nature is deemed essential. Past cohorts have demonstrated a diverse background, originating from various disciplines and higher education systems. Discussions with relevant stakeholders have highlighted that this diversity enriches the PIONEER programme.

Mandatory proficiency in English, both spoken and written, is outlined in the examination regulations. Additionally, submission of a recommendation and a motivation letter offers insights into the applicant's suitability for the programme. Although minor changes, such as the introduction of interviews, have been implemented in the past, the admission process remains straightforward.

Each university independently assesses eligible applications, followed by a joint meeting to discuss the longlist of candidates. Shortlisted applicants undergo online interviews to evaluate motivation, language skills, and background information. The Academic Steering Committee then reaches a consensus based on interview outcomes to make final selections.

Typical obstacles in joint programmes, particularly concerning the transition phase in the curriculum, are addressed by enrolling all students at all three universities throughout the programme duration.

Conclusion

The criterion is fulfilled.

4.2 Recognition

Recognition of qualifications and of periods of studies (including recognition of prior learning) should be applied in line with the Lisbon Recognition Convention and subsidiary documents.

Description

According to the information given by the consortium, students can apply for an exemption from a course, given previous studies and/or work experience for recognition. If applications are consented by the Academic Steering Committee, consideration of previous studies or work experience shall take place in accordance with the procedures established at the university, which is responsible for providing the concerned course(s). The Academic Steering Committee adheres to the Recommendation on Criteria and Procedures for the Assessment of (Foreign) Qualifications, if applicable.

Experts' evaluation

Recognition of qualifications is a fundamental aspect of ensuring fairness and equity in education, because it reflects the diversity in educational paths. In accordance with the Lisbon Recognition Convention and subsidiary documents, the consortium has established procedures for students to apply for exemptions from courses based on their previous studies or work experience. The discussion showed that KU Leuven being responsible for the general admission is in charge of these processes. The stakeholders provided an unisono feedback that the instruments are well established, so that the consortium can easily rely on experience at KU Leuven.

Furthermore, the Academic Steering Committee plays a decisive role in reviewing these applications (as stated above) and ensuring that recognition processes align with established university procedures within the whole consortium. This includes adhering to transparent and accountable decision-making processes that prioritise fairness and non-discrimination.

Conclusion

The criterion is fulfilled.

5. Learning, teaching and assessment**5.1 Learning and teaching**

The programme should be designed to correspond with the intended learning outcomes, and the learning and teaching approaches applied should be adequate to achieve those. The diversity of students and their needs should be respected and attended to, especially in view of potential different cultural backgrounds of the students.

Description

According to the SER, the curriculum's development was discussed so that every course shall be aligned with each other with the aim of leading to a programme that is coherent. During the delivery of the programme, teaching staff of the universities are to be involved in guest lectures or eLearning lectures in each other's educational part. In Leuven, the subjects of the programme are supposed to be introduced. In Münster, the focus is said to be laid on the subjects of Information Systems and Technology and digital evolutions, while Public Sector Innovation and e-governance shall be referred at and briefly introduced. In Tallinn, the main focus is to be laid on Public Sector Innovation and e-governance, while technology and digital evolutions are mentioned as focal points as well. When starting the programme in Leuven, students select their Individual Study Plan in the KU Leuven database for the full duration of the programme, including the courses that are to be taken in the following semesters.

Besides usual forms of teaching and learning such as lectures and seminars as well as online teaching, the consortium highlights the integrated research seminar which is part of every semester and shall build upon the knowledge and experience gained in previous semesters. For this, students are put together in groups of four to five and work on a certain topic during three semesters from different disciplinary angles. The topics will be decided upon by the course coordinators of the three universities. Every group of students will be designated a different topic (e.g., e-democracy, e-health, big data use, etc.).

Experts' evaluation

During the site visit, it became clear that the teaching and learning approaches implemented in the curriculum supports the acquisition of the intended learning outcomes on the programme level. The individual courses

are predominantly coming from other programmes at the higher education institutions in the consortium, but still the curriculum and the teaching and learning approaches fulfil its aim, while acknowledging and accommodating the diverse needs of students, including potential differences in cultural backgrounds. Leveraging existing courses allows for the integration of established expertise and resources from each university, ensuring a comprehensive and robust curriculum that addresses the multifaceted aspects of the individual expertise that each consortium partners contributes to the curriculum. This is the fruit of emphasising the importance of aligning each course with others to ensure coherence throughout the programme throughout the curriculum's implementation and further development. This alignment facilitates a structured progression of learning, enabling students to build upon their knowledge and skills consistently over time.

In addition to traditional teaching methods such as lectures and seminars, innovative approaches have been discussed through on-site discussions. For instance, the integrated research seminar held in every semester provides students with the opportunity to engage in collaborative, interdisciplinary research projects. From the expert's perspective, the approach for the integrated research seminar (including the above-mentioned changes) holds high potential to the learner's progression. It allows students to apply theoretical knowledge in practical contexts, fostering critical thinking, problem-solving, and teamwork skills essential for addressing complex challenges in the discipline.

Furthermore, the inclusion of different teaching styles across the three universities of the PIONEER Consortium has been a topic of thorough on-site discussions. The relevant stakeholders have confirmed that there are differences in the approaches, which is logical in these setups. The experts believe that by exposing students to a diverse range of pedagogical approaches, the programme caters to different learning preferences and styles, fostering a dynamic learning environment.

Conclusion

The criterion is fulfilled.

5.2 Assessment

The examination regulations and the assessment of the achieved learning outcomes should correspond with the intended learning outcomes. They should be applied consistently among partner institutions.

Description

Within the programme, the achievement of the learning outcomes and the outlined learning goals shall be proven by different examination types. An Academic Steering Committee was installed that shall ensure and endorse a unified framework for the examination related to the expected learning outcomes in the different partner universities. Case studies and written exams are said to be used to measure performance on the learning goal "sophisticated knowledge". In terms of practice, the student has to reflect on proper job challenges in the context of concepts and methods learned in the course. The learning goal "trained in research" is to be accomplished via seminar papers as well as the concluding master thesis, in which the student has to apply scientific methods to an either real case scenario or a scientific question. The defences of these papers and the thesis are to be used to measure performance of the learning goal "good communicator". Furthermore, presentations within the lectures and exercises shall help the student to achieve this goal. Being a "responsible agent" is said to be accomplished by critically reflecting and questioning the own findings in discussions, presentations, and writing throughout the programme. The Consortium provides a translation table of national grades, based on the ECTS, in order to harmonise the different national grading scales.

For the Master's thesis, joint principles have been established. These include regulations on the organisation, such as that students shall perform the thesis under the supervision of one of the coordinating universities, at a location of their choice; that students need to come up with a specific topic of their choice and find a supervisor for it while the coordinating universities aim at sharing the supervisory of the master theses equally. The topic is supposed to fit within the expertise of the supervisor but also has to fit in the holistic integrated perspective of the programme. Students have the right to do an internship within the framework of their master's thesis (such as fieldwork, data collection, participatory observation). A master's thesis must meet the standards that allow it to be published in a reworked and summarised way, be it as a conference paper, professional or academic journal article.

Experts' evaluation

Based on the provided documentation, experts have evaluated the adequacy of assessment methods within the consortium. It is acknowledged that assessment styles may vary among consortium partners. However, the experts confirm that the selected assessment methods are suitable and ensure adequate exposure of cohorts to a diverse range of assessments. During the site visit, experts randomly selected some courses from the core curriculum and extensively discussed how specific assessment methods contribute to achieving both course-level intended learning outcomes and programme-level intended learning outcomes. The consortium convincingly demonstrated mechanisms for developing course-level ILOs, course content, and appropriate assessment methods. Additionally, experts analysed past cohorts' master's theses, which were based on topics selected proactively by students throughout the programme. The integrated research seminar effectively enhances interdisciplinary focus towards the discipline, aligning well with the programme's scope and maintaining high-quality standards. While workload basis varies among consortium partners, a joint workload basis for the master's thesis (26h/credit) has been agreed upon.

Examination regulations, including grading schemes, are deemed appropriate across all consortium partners, covering expected aspects of joint programmes. However, special attention was given to assessment regulations for the integrated research seminar, which involves group work throughout the programme. While few cases required escalation to the academic steering committee, they were satisfactorily resolved, reflecting the consortium's proactive approach to such issues. Appeal and complaints regulations for students are established and well-known.

Conclusion

The criterion is fulfilled.

6. Student support

The student support services should contribute to the achievement of the intended learning outcomes. They should take into account specific challenges of mobile students.

Description

Following the SER, student support in the programme includes jointly offered services such as insurance, a joint starting ceremony, information on the programme's website and counselling at the three universities over the whole course of the programme as well as individual services offered by each university. For students' support, a counsellor at every university shall provide advice and support about housing, making the necessary appointments at the local immigrations' office (if needed), etc. Also, students can get support from the student services at each partner university, such as (mental) health services, advisory centres, and leisure offerings. Additionally, support shall be given by the teaching staff, tutors and other institutions such as the International Relations Centre of the School of Business and Economics at University of Münster.

The programme managers at each university are given as the main contact for the students if problems occur. They shall advise students in terms of the programme, selection of courses, study load, academic progress, internship, etc. In addition, weekly hours are scheduled for each member of the teaching staff to advise students in course-specific issues. At TalTech, counselling services include career counselling and career fairs and employer presentations organised on campus. Internship and career options shall be given by the School of Business and Governance Internship Portal.

The website shall provide students with up-to-date information about the programme as well as important dates and deadlines. Also, relevant information on housing, study guidance, etc. shall be provided there for every university. At each campus, a guided tour and the city of Leuven, Münster and Tallinn shall be organised, and students shall be encouraged to take part at the different university activities for foreign students (e.g., orientation days and the buddy programme at KU Leuven). Two student representatives are elected to become members of the Educational Board of the programme.

By the end of the second semester of the first year, the Academic Steering Committee summarises the results of all first-year students and takes decisions on advice on retakes of exams and the eventual inhibition of grants to students.

Experts' evaluation

The programme offers a wide range of student support services, including jointly offered services such as insurance coverage, a joint starting ceremony, and comprehensive information available on the programme's website. Additionally, counselling services are available at each of the three universities throughout the duration of the programme. Individual services provided by each university further enhance the support available to students. These services encompass housing assistance, scheduling appointments at immigration offices, mental health services, career counselling, and advisory centres, among others.

In addition to this, the programme managers at each university serve as primary points of contact for students, offering advice and support on various aspects of the programme, including course selection, study load management, academic progress, and career options. This supports students' navigation in their academic journey. The discussion showed that teaching staff members are also actively involved in providing support to students, with weekly hours scheduled for advising students on course-specific issues.

The students demonstrated that the inclusion of student representatives in the educational board of the programme ensures that student voices are heard and considered in decision-making processes, further enhancing student engagement and representation within the programme. The PIONEER programme has student ambassadors might also serve as a point of contact to current and future students. The discussion showed very clearly that current students and graduates of the PIONEER programme maintain a strong bond with each other. There are informal points of exchange that clearly underpins that statement. However, while the student support services demonstrate a commitment to addressing the needs of students, there is room for improvement in certain areas, namely the institutionalisation of alumni activities and a more proactive management of student integration into the programme in the transition phases of the programme.

From the expert's perspective, alumni activities play a crucial role in fostering a sense of community and providing ongoing support to graduates beyond their time in the programme. However, the evidence during the site visit suggests that there could be more institutionalised alumni activities within the PIONEER programme. Within informal channels, this does not seem to be a problem, but the evidence shows that this was originally rather a grassroot process made by students and still maintained on an informal level. The experts state that establishing formal mechanisms for alumni engagement, such as alumni networks, and events can facilitate ongoing connections between graduates and current students in a more structured manner that includes every PIONEER student. By institutionalising alumni activities, the programme can strengthen its alumni

community, leverage alumni expertise and experiences, and provide valuable support to students as they transition into the workforce or pursue further education (**Finding 4**).

The discussions with the relevant stakeholders showed that new students have to start basically from zero in terms of typical cohort issues in joint programmes like housing, registration at the city hall and alike. This might not be applicable at the very start of the PIONEER programme, but it might be at a later stage in Münster and Tallinn. The students demonstrate a very proactive approach here, and the situation is solved by the informal channels (see above). It has been confirmed that this is a very helpful channel. However, the experts want to express that these typical issues might have an impact on the students' overall well-being and academic experience. Creating a platform or resource hub including information for all three partners in the consortium can empower students to navigate these challenges more effectively (**Finding 5**).

Still, the experts that entirely confirm that the PIONEER programme demonstrates a strong commitment to facilitating student support and fostering a supportive learning environment.

Conclusion

The criterion is fulfilled.

7. Resources

7.1 Staff

The staff should be sufficient and adequate (qualifications, professional and international experience) to implement the study programme.

Description

For the University of Münster, six professorships are listed in the SER that are involved in the study programme. These are supplemented by a CIO and CEO Chair of Information Systems and Information Management. For the KU Leuven, six professorships and one lecturer from the Public Governance Institute, Spatial Applications Division is given as staff in the SER. The tabular overview for TalTech lists three professorships and two lecturers as Head of the Public Sector Innovation research group and Senior Lecturer in Philosophy at the Nurkse Department. Teaching staff from the consortium are said to actively take part in the teaching of the programme at the different partner institutions. Accordingly, lecturers from Münster and Tallinn are involved in courses in the first semester in Leuven and vice versa, which shall support streamlining the courses, foster the jointness and the quality of the programme.

In general, the courses shall be flanked with guest lecturers from outside the consortium. It is explained in the SER that about 30 organizations, like private companies working in the field, and from public bodies, like ministries, have stated their willingness to support the programme by guest lectures, offering internships, optionally combined with master's thesis topics.

Experts' evaluation

The panel of experts have assessed the staffing situation of the PIONEER programme, and have thoroughly reviewed the documentation provided, which included CVs of staff implied in the programme. Based on that examination, the experts confirm the suitability of the staff involved in the implementation of the programme, in accordance with the specified standard. The assessment of the documentation and the follow-up discussions on-site clearly showed the staff across all partners is sufficient in terms of numbers and qualifications. Upon reviewing the documentation provided, the staff possess both professional and international experience necessary for the effective execution of the programme. The overview provided in the self-evaluation report clearly demonstrates that the programme's composition reflects the diverse array of expertise, which enriches

to interdisciplinary academic landscape of the programmes. The experts also support the programme's plans to strengthen the engagement with external stakeholders towards a scenario where external stakeholders contact the PIONEER programme to provide solutions for current issues (see Chapter 3.1.2).

The inclusion of expertise from strong departments and institutes underscores the commitment to comprehensive and multifaceted learning experiences. The discussion also highlighted a collaborative approach to teaching, with staff members from consortium institutions actively participating in course delivery across partner institutions. This cross-pollination of expertise fosters synergy, promotes jointness, and enhances the overall quality of the programme. Still, as outlined below, the experts believe that a platform of exchange on a lower level than the academic steering committee might be helpful to support the learner's progression even more. From the expert's perspective this informal exchange could further encourages collaboration and networking opportunities among teaching staff involved in PIONEER (see Finding 6b).

Conclusion

The criterion is fulfilled.

7.2 Facilities

The facilities provided should be sufficient and adequate in view of the intended learning outcomes.

Description

As stated in the SER, the facilities such as lecture halls and seminar rooms at the three universities involved can be used for the programme. This includes the use of the library in accordance with the library regulations of each institution; the use of the information technology infrastructure in accordance with the specific regulations of each institution; education support through the electronic learning environment; access to regular facilities that other students at the respective universities have, such as learning spaces, PC pools and IT-Labs, hard- and software, editing rooms, and alike.

Experts' evaluation

According to the SER, the facilities required for the PIONEER programme, including lecture halls, seminar rooms, and libraries, are readily accessible at each participating institution. This ensures that students have the necessary physical spaces for academic instruction, group discussions, and independent study. The responsible persons of the PIONEER have demonstrated via videos and on-site that students have access to the information technology infrastructure of each university, in compliance with institution-specific regulations. Students are inscribed at all three universities for the sequence of the programme. Consequently, they have access to the electronic learning environments. At each consortium's partner, students have additionally access to PC pools, IT labs, and other technological resources essential for modern academic pursuits.

The provision of educational support through electronic learning environments enhances the learning experience by facilitating communication, collaboration, and access to course materials. Students clearly benefit from that seamless integration of technology into their academic journey.

Importantly, the facilities available to PIONEER programme students are on par with those accessible to other students at the respective universities. This ensures equitable access to learning spaces, hardware, software, editing rooms, and similar resources, thereby promoting inclusivity and fairness within the academic environment. In addition, the experts have learned that for instance WWU is currently restructuring some of the spaces and a specific place for PIONEER students will be created.

Conclusion

The criterion is fulfilled.

8. Transparency and documentation

Relevant information about the programme like admission requirements and procedures, course catalogue, examination and assessment procedures etc. should be well documented and published by taking into account specific needs of mobile students.

Description

The main source of information of the programme is its website, including information on the application process and criteria, the programme's learning outcomes, etc. Additionally, students can find information on students' services like the International Office and responsible examination offices of each university on their websites. In the SER, it is also explained that the course catalogues as well as information on examination and assessment procedures are accessible via each university's online system, e.g., Moodle, including information concerning the topic and content of the courses like slides and additional reading material.

Experts' evaluation

The experts have double checked the statements from the SER with the real accessibility of the information for students. Based on that, the experts can confidently affirm that the PIONEER programme is well-equipped to meet the standard.

The programme's website serves as the main source of information for prospective and current students. It provides comprehensive details about the application process, admission criteria, learning outcomes, and other essential information like practical information or information on the student ambassadors. This demonstrates a commitment to transparency and accessibility, ensuring that students have access to all necessary information. Additionally, students can access information about student services, such as the international office and examination offices, through the respective university websites.

The discussion with the students confirmed that course catalogues, examination procedures, and assessment guidelines are readily accessible through each university's online system. By providing such comprehensive resources online, the programme facilitates easy access to essential academic information for mobile students, promoting a smooth learning experience across partner institutions.

Overall, the documentation ensures the accessibility and transparency of relevant programme information. The provision of detailed information through the programme's website and university online systems demonstrates a commitment to meeting the specific needs of international students and fostering a solid learning environment.

Conclusion

The criterion is fulfilled.

9. Quality assurance

The cooperating institutions should apply joint internal quality assurance processes in accordance with part one of the ESG.

Description

At the organisational level, the members of the Academic Steering Committee (consisting of the main representatives of the three consortium partners) meet three times a year: before each semester and after the last semester in order to discuss issues, points of attention and to maximise a shared knowledge base to strengthen the commonly shared approach.

The programme's quality assurance is explained to be carried out at three levels:

1. at local programme level with questionnaires on the quality of the courses including the workload for each course; these evaluations are conducted according to the regulations and evaluation system of each university;
2. at institutional level; it is explained in the SER that the programme as a whole is subject to an external quality assurance procedure including the evaluation of the curriculum as a whole (SWOT analysis), carried out by hearings, questionnaires, study load measurements, etc. in which students, staff, alumni and other stakeholders are said to be involved;
3. at consortium level by the academic Steering Committee, the continuity of the programme, execution of quality related decisions taken by the consortium, coherence of the programme and its educational framework, as well as evaluation and monitoring of the quality of the courses is explained to be evaluated and discussed on a regular basis. The Academic Steering Committee is supposed to initiate a thorough curriculum evaluation, using evaluation reports conducted at the local level, which shall result in an internal review report.

It is stated in the SER, that additionally every course evaluation is handed to the Educational Board, in which also student representatives are involved (also see chapter "student support"), and which shall mainly focus on negative feedback. These evaluations shall be discussed in detail, together with the responsible lecturer. Afterwards, the Educational Board shall make a proposal for further consideration, such as the agreement with the lecturer for improvement of the course including informing the Academic Steering Committee about the agreement, or a general change in the curriculum as a suggestion to the Academic Steering Committee which has to decide on it (i.e., a change of lecturer or change of course(s) in the overall curriculum).

Additionally, possible escalation procedures of the single institutions in case of quality issues of single courses of the programme or parts of the programme are said to be unaffected and are still possible; they are based on each university's quality assurance regulations.

With the aim to also involve external expertise in the further development of the programme, it is explained in the SER that an Advisory Board was established. Based on a survey of all students enrolled in the programme in which their satisfaction about the overall organisation of the programme, the structure of the programme, the teaching organisation, offered courses, supervision, and an assessment of the programme with regard to one's future profession is to be evaluated, the Advisory Board shall get additional feedback from the partners outside the consortium.

Also, alumni are to be asked to give feedback especially related to their employability, their job perspectives, and their experiences of which learning outcomes and competencies derived from the programme are of help or which they are missing after receiving their master's degree and starting their career. The results are also to be given to the Advisory Board and Academic Steering Committee.

As explained in the SER, the programme was changed due to students' feedback since the last accreditation. As the students requested more technical aspects in their curriculum, courses such as "Advanced Concepts

in Software Engineering” or “Information Security” can now be selected as electives. The request for a more transparent thesis procedure shall be met by giving information on Moodle.

Experts' evaluation

The experts' panel discussed the quality assurance activities for the PIONEER programme with the relevant stakeholders, while double checking with students. It can be clearly affirmed the suitability of the PIONEER QA activities. The overall programme's quality assurance is conducted at three distinct levels: local programme level, institutional level, and consortium level. At the local programme level, evaluations are carried out using questionnaires that assess the quality of courses, including factors like workload. These evaluations adhere to the regulations and evaluation systems of each university, ensuring consistency and fairness. The results are discussed by the academic steering committee and adaptations could take place, if deemed necessary. At the institutional level, the entire programme undergoes external quality assurance procedures. This comprehensive evaluation includes a SWOT analysis of the curriculum and involves input from students, staff, alumni, and other stakeholders, ensuring a holistic assessment of the programme's effectiveness and relevance. The academic steering committee ensures that quality assurance activities on the consortium level. The focus here is on ensuring the continuity of the programme, executing quality-related decisions, and maintaining coherence in the educational framework. Regular evaluation and monitoring of course quality contribute to the ongoing improvement and refinement of the programme, as stated above.

The QA scope actively involved various stakeholders, including students, staff, alumni, and external experts, in the quality assurance process. This inclusive approach ensures that diverse perspectives are considered, and valuable feedback is incorporated into decision-making. The programme's responsiveness to student feedback, as evidenced by recent changes made based on student input, demonstrates a commitment to meeting the evolving needs and expectations of students. The experts have discussed the QA results with the relevant stakeholders to see that the PDCA cycle is fully closed, which can be testified. The quality assurance instruments at all three consortium partners are fully in place and include similar processes. However, the experts believe that the efforts towards a continuous quality enhancement strategy can be improved (**Finding 6**).

The establishment of an advisory board further enhances the programme's responsiveness to stakeholder feedback. This board consists of private companies working for the public sector, public networks and associations and public authorities. It can be stated that by soliciting input from partners outside the consortium, as well as alumni, on various aspects of the programme, such as organization, structure, and teaching quality, the advisory board facilitates continuous improvement and innovation. However, the level of discussion on new topics should be further enhanced in future development of the programme. The restructuring of the integrated research seminar sounds promising, and the expectation that emerging problems for the sector will come to students via that seminar is logical, but a more continuous dialogue on emerging issues on the level of the advisory board is suggested (**Finding 6a**). Also, this can serve as a blueprint for the programme itself. The interdisciplinary nature of the PIONEER already focuses on the interdisciplinarity of the discipline, while that level of interdisciplinarity might not be fully reflected in the advisory board.

Within the same direction, it is suggested to offer an informal platform of exchange for staff involved in the programme but without coordination responsibility within PIONEER. From an expert's perspective, an exchange of teaching styles across partner institutions can be an additional impetus for the teaching and learning experiences of both teaching staff and students. This might lead for instance to collaborative initiatives, such as co-teaching or joint course development, enable staff to leverage their collective expertise and resources to create a higher quality learning experiences for students, and consequently, on further professional development (**Finding 6b**).

Conclusion

The criterion is fulfilled.

V. Findings

1. The experts endorse restructuring the observational internship and recommend integrating real-case scenarios from the discipline's sector to enhance the applied focus of the programme.
2. The experts advise an early communication on the programme's baseline research skills.
3. It is recommended that the programme's curriculum integrates non-EU viewpoints to provide a broader understanding of global public innovation and e-governance.
4. It is recommended to enhance the support to formalise alumni engagement to establish a constant point of exchange with PIONEER alumni outside the established informal ways.
5. It is recommended to establish, e.g. a resource hub to empower students in navigating typical cohort issues of joint programmes in the transition phases more effectively.
6. It is suggested to enhance the efforts towards continuous quality enhancement in the PIONEER programme by:
 - a. fostering more robust discussions on emerging topics within the advisory board,
 - b. while also facilitating informal exchanges among staff to promote, e.g., collaborative teaching initiatives.