STAKEHOLDERS' ANALYSIS – DOCTORAL EDUCATION IN GEORGIA

Report for the research project conducted under the framework of MES-CIF-2-49 Project IDEG – Internationalization of Doctoral Education in Georgian Universities

2025

Table of Contents

Citation Information

To acknowledge this publication appropriately, please cite it as follows:

Preamble

This study results from a collaborative research effort led by a multidisciplinary team that combines international expertise, national leadership in higher education, and emerging scholarly perspectives. The team's composition reflects both academic diversity and the collaborative spirit necessary for a comprehensive and critically informed analysis of doctoral education in Georgia.

Led by Prof. Paul Gibbs (University of Middlesex, UK), the research gathered senior academics with extensive knowledge of Georgian higher education policy and reform. These scholars provided strategic vision, conceptual clarity, and analytical oversight, ensuring the study aligns with European frameworks and national development goals.

A key strength of this project is its integration of early-career researchers. A group of highly involved PhD candidates contributed significantly to fieldwork, data collection, survey dissemination, qualitative interviews, statistical analysis, and comparative interpretation. Their involvement added methodological depth and valuable insight into the lived experiences of doctoral students from those directly engaged in the process.

The research team included:

Senior Researchers

- Prof. Paul Gibbs (Team Leader) – Middlesex University, United Kingdom
- Assoc. Prof. Irma Grdzelidze – Ivane Javakhishvili Tbilisi State University
- Assoc. Prof. Rusudan Sanadze – Ivane Javakhishvili Tbilisi State University
- Assoc. Prof. George Sharvashidze – Ivane Javakhishvili Tbilisi State University
- Assoc. Prof. David Sikharulidze – Ivane Javakhishvili Tbilisi State University

PhD Candidates

- Sopio Idadze – Ivane Javakhishvili Tbilisi State University
- Tatia Mamrikishvili – Ivane Javakhishvili Tbilisi State University
- Thea Siprashvili – Ivane Javakhishvili Tbilisi State University
- Marine Gognelashvili – Ivane Javakhishvili Tbilisi State University

- Nino Gogadze – Centre for Science and Technology Studies (CWTS), Leiden University, Netherlands

Together, the team has produced an evidence-based, multi-perspective study that combines academic rigor with practical relevance. This report serves as a resource for institutions, policymakers, researchers, and all stakeholders committed to improving the quality, relevance, and internationalization of doctoral education in Georgia.

Executive Summary

This report provides the results of a comprehensive stakeholder analysis of doctoral education in Georgia, offering critical insights into the current state of the system, the challenges it faces, and opportunities for reform. The research combines findings from student surveys, interviews, and focus groups with internal and external stakeholder input, statistical reviews, and accreditation report analyses to deliver an evidence-based understanding of Georgia's doctoral landscape.

Context and Challenges

Doctoral education in Georgia has officially aligned with the principles of the European Higher Education Area (EHEA) and the Salzburg Principles, yet it remains underdeveloped in practice. Key challenges include:

- Low completion rates and declining enrollments, especially in STEM fields.
- Ambiguity in legal and strategic frameworks, where concepts like structured programs, supervision, and transferable skills lack consistent interpretation.
- Limited internationalization, with most programs taught in Georgian and very few attracting international students.
- Existing financial and institutional support for doctoral researchers and supervisors, which turns out to be leading to high dropout and suspension rates.

These issues reveal a fragmented system struggling to balance formal compliance with meaningful development.

Key Findings

- While generally satisfied with formal supervision and infrastructure, doctoral candidates report a need for enhanced mentoring, lack of well-being and financial support, and feelings of isolation from broader research communities.
- Supervisors face heavy workloads, insufficient recognition, and weak institutional incentives, which undermine program quality. University leaders typically inherit doctoral structures rather than design them, and policymakers acknowledge reform ambitions but admit ongoing funding gaps.

- Cluster accreditation has introduced systemic oversight but remains largely compliance-driven. Reports show adherence to standards but limited evidence of improvements in supervision, learning outcomes, or student experience.

The Way Forward - Four Priorities

1. Clarify the research identity of doctorates: Legislation and standards should firmly define the doctorate as a research-intensive qualification, setting it apart from other cycles.
2. Strengthen supervision and research culture: Universities should professionalize supervision, develop institutional support systems, and integrate doctoral researchers into active research networks.
3. Improve funding and support structures: Sustainable financial backing, mobility schemes, and well-being services are crucial to reduce attrition and promote timely completion.
4. Enhance internationalization: Expanding English-language programs, fostering joint doctorates, and boosting international recruitment will strengthen Georgia's position within the EHEA.

Conclusions

Doctoral education in Georgia is undergoing a dynamic transformation. Building on reforms and active participation in European frameworks, a strong foundation has already been established. To further strengthen the system, the focus is now shifting from procedural compliance toward a developmental model that emphasizes rigorous supervision, sustainable funding, and active international engagement. These steps will not only enhance research competitiveness but also ensure deeper alignment with European standards and greater global visibility for Georgia's academic community.

Introduction

Doctoral education represents the apex of higher education and a strategic asset for national research capacity, innovation, and human capital development. In the context of Georgia's evolving knowledge economy and its integration into the European Higher Education Area (EHEA), the modernization and internationalization of doctoral education have emerged as key reform priorities. However, despite a growing alignment with European policy frameworks, Georgian doctoral education continues to face substantial systemic, institutional, and cultural challenges. These include conceptual ambiguities in national legislation, a fragmented supervision culture, low on-time graduation rates, less developed internationalization, and weak internal quality assurance of doctoral education.

This study, carried out within the MES-CIF-2-49 project *Internationalization of Doctoral Education in Georgian Universities (IDEG)*, provides comprehensive system-level analysis of doctoral education in Georgia. It aims to document the current landscape, assess progress and bottlenecks, and offer evidence-based insights to support ongoing reforms. To do so, the research employs a multi-method approach combining legal and strategic policy review, national statistical data analysis, doctoral student survey results, qualitative interviews and focus groups, and accreditation report analysis. This triangulated design enables the study to bridge structural diagnostics with lived experiences, uncovering both surface-level trends and deeper cultural or institutional dynamics.

Chapter I examines the policy, legal, and strategic framework guiding doctoral education in Georgia. Through documentary analysis, it traces how national legislation and strategic documents such as the Law on Higher Education (2005), the ESG standards, the Salzburg Principles, and the Vienna Declaration have been interpreted and operationalized. The chapter critically evaluates the conceptual underpinnings of doctoral education, identifying inconsistencies in the definition of structured programs, the relationship between research and education. While the 2024 framework document represents a positive development, its impact depends on institutional readiness and implementation support.

Chapter II presents a quantitative analysis of national-level data provided by EMIS, NCEQE, the Shota Rustaveli National Science Foundation, and the International Education Centre. The findings reveal structural weaknesses across the doctoral education pipeline: declining enrollment trends since 2020, a high proportion of students with suspended or terminated

status, low on-time graduation rates, and strong geographic centralization in Tbilisi. Most programs are in Georgian and housed in public universities, while participation in STEM fields remains modest. Gender disparities vary by discipline, and international mobility and English-language provision remain limited. The data raise concerns about equity, effectiveness, and the long-term sustainability of doctoral provision.

Chapter III introduces the findings of the first dedicated nationwide doctoral student survey conducted as part of this research. The survey explores doctoral candidates' perceptions of supervision quality, program structure, academic support, research culture, mobility, emotional well-being, and career orientation. The results underscore widespread dissatisfaction with supervision practices, limited research engagement, and inconsistent institutional communication. Students often experience the doctorate as isolating, unstructured, and misaligned with both their professional realities and research aspirations. There is a strong call for clearer expectations, improved infrastructure, and flexible, individualized pathways that support both academic and professional growth.

Chapter IV provides a qualitative deep dive through focus group discussions with academic staff and doctoral supervisors, as well as interviews with institutional leaders and national policy makers. These conversations explore how policy goals and accreditation standards are translated into daily practice. The analysis reveals persistent gaps between formal requirements and actual implementation. Supervisors report high workloads and minimal institutional support; program structures are often inherited rather than intentionally designed; and mentoring cultures remain underdeveloped. Policy makers highlight reform ambitions but acknowledge barriers in institutional capacity, funding mechanisms, and the diffusion of good practices across institutions. These findings emphasize the need for system-wide professionalization of supervisory roles and stronger institutional cultures of doctoral support.

Chapter V synthesizes insights from 29 doctoral program accreditation reports reviewed between 2022 and 2024, including those evaluated through Georgia's cluster accreditation model. Using standards-based content analysis, the chapter identifies formal compliance with most quality criteria, particularly in areas such as staffing, infrastructure, and financial planning. However, recurring challenges are evident in supervision quality, internal quality assurance, program coherence, and the development of transferable skills. Evaluation panels often note the disconnection between program objectives and actual learning outcomes or assessment methods. The findings suggest that while accreditation processes are maturing, their

developmental function is still limited by procedural focus and uneven engagement with continuous improvement.

Taken together, these five chapters portray a doctoral education system in transition, formally aligned with European frameworks but constrained by weak institutional capacity, fragmented academic practices, and insufficient support for doctoral researchers. The system has achieved significant milestones: the introduction of structured standards, engagement in international frameworks, and gradual quality assurance reform. Yet substantial work remains to internalize these changes and move from a model of procedural compliance to one of genuine academic and research enhancement.

The study concludes with a set of comprehensive, evidence-based conclusions and recommendations. These focus on clarifying doctoral education's research mission, supporting supervision and student well-being, strengthening quality assurance from within institutions, improving funding instruments, and fostering an inclusive, internationally oriented research environment. The vision is for doctoral education in Georgia to evolve into a dynamic and rigorous system- one that supports both the production of new knowledge and the development of confident, competent, and globally connected researchers.

Chapter I - Structuring Doctoral Education in Georgia: Legal Foundations, Strategic Programs, and Quality Assurance

1.1 Introduction

Doctoral education in Georgia operates under a framework shaped by national legislation, policies, and strategic programs that aim to align the country's higher education system with international standards. This section provides an analysis of the key legislative provisions and strategic initiatives guiding doctoral education in Georgia, divided into two sub-sections: policy and legislation, and strategies and programs.

1.2 Policy and Legislation

The foundation of doctoral education in Georgia is governed by the Law on Higher Education, which sets forth the basic concepts and structures that define the doctoral education framework. Article 2 of the law defines a doctoral program as "the third level educational program of higher academic education, a combination of educational and scientific research components for the training of scientific personnel, which is completed by the granting of a doctor's academic degree" (Law of Georgia on Higher Education, 2005). This definition emphasizes both educational and research components, which reflects the international standards such as the Salzburg Principles, widely recognized in Europe for framing doctoral education policies. However, some experts (Darchia I - Erasmus+ et al., 2020), argue that this definition fails to fully differentiate the roles of research and education in doctoral studies. They contend that research should take precedence, with educational components supporting the development of transfer skills, rather than being treated as equally essential: "this definition does not show the peculiarities of doctoral studies and especially the fact that at the third level of teaching, the teaching and research components should not be considered as instruments of equal importance. Doctoral studies should first and foremost be research that uses the learning component, transfer skills development activities, not as a core but as an ancillary, supportive tool."(Darchia I - Erasmus+ et al., 2020) It should also be noted that the current legislation does not address professional, industrial, practice-based, or PhD by publication doctorates, which are widely implemented and frequently discussed in both academic and policy contexts in the European Higher Education Area.

Doctoral education has two closely intertwined outcomes – qualified people in the form of doctoral graduates and the knowledge that results from the research they have conducted. Doctoral candidates play a central role in research projects. A substantial proportion of the scientific endeavor would not be possible without their contribution. The doctoral journey itself is a professional research experience that marks a transition from having been a student to being an independent worker and researcher. Research is a key resource for societies to reflect on where they come from and where they are going, to assess the present and address the challenges of the future (EUA Position Paper, 2022, June).

In addition, the Law of Georgia on Higher Education defines related roles and structures critical to doctoral education. For example, Article 2 (subsection Z_3^6) introduces the concept of the post-doctoral fellow, which refers to individuals with a doctor's degree employed for specific research projects. The Dissertation Council, defined under Article 2, Z_{14}, is the governing body responsible for granting doctoral degrees. The Council operates within the academic structure of a university and is guided by regulations established by the university's academic council (Law of Georgia on Higher Education, 2005, English version).

Several articles in the Law of Higher Education (e.g. Article 49^1) deal with the development of collaborative programs - double and multiple academic degrees. However, experts maintain that the respective clauses lack clarity as to what is implied by the terms (Darchia et al., 2020).

Article 22 establishes the qualifications and election procedures for the position of Rector at state universities. Candidates must hold a doctoral degree and meet the criteria defined by the university's statute. This requirement ensures that Rectors are not only administrative leaders but also individuals who possess the academic qualifications necessary to guide research, innovation, and education at the highest level.

Article 7 (o7) outlines the responsibility of the Ministry of Education, Science, and Youth to establish procedures and conditions for funding Doctoral Programs. MoESY provides needs-based funding, which covers specific vulnerable categories.

Georgia's system of external quality assurance comprises authorization (institutional) and accreditation (programme), governed by respective statutes (On Approval of Authorisation Fees and Authorisation Regulations for Educational Institutions, 2010; On the Approval of the Regulation for the Accreditation of Educational Programmes and the Fee for the Accreditation of Educational Institutions, 2011). Authorization determines compliance of an institution with

the standards. Accreditation determines compliance with the standards of a programme. Both authorization and accreditation standards paid special attention to issues related to doctoral studies, though experts indicated that not all aspects of doctoral education were comprehensively covered by the accreditation standards: "only some of the key issues related to doctoral education can be assessed utilizing the appropriate criteria, evidence and indicators in accordance with the current standards" (Darchia et al., 2020).

Doctoral education is explicitly addressed in the *Authorization Standards for Higher Education Institutions* under Standard 6: Research, Development and/or Other Creative Work, which outlines the requirements for ensuring the quality and effectiveness of PhD-level studies. The standards emphasize that universities must define clear functions for PhD supervisors and ensure that the workload of academic and scientific staff allows for effective supervision of doctoral dissertations and research projects. Furthermore, institutions are required to maintain an appropriate supervisor-to-PhD student ratio and provide transparent, fair, and publicly accessible procedures for the assessment and defence of PhD dissertations.

In addition to supervisory and procedural requirements, the standards also address support mechanisms and internationalization of doctoral education. Higher education institutions are expected to foster the involvement of PhD candidates in scientific and creative research activities and to support their initiatives. The standards encourage the development and implementation of joint PhD programs and promote joint supervision practices involving both local and international academic staff. These requirements collectively ensure that doctoral education in Georgia is conducted in alignment with national and European standards, supporting the advancement of high-quality research and international collaboration.

International experts collaborate with local accreditation experts to assess doctoral and regulated educational programs. Since 2022, as a further step to improve the process, Georgia is introducing cluster accreditation. Like the former accreditation procedures and standards, cluster accreditation is also in full compliance with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG 2015). It entails the evaluation of educational programs across predefined academic disciplines each year.   All higher education sectors are set to progressively undergo cluster accreditation by 2028 (Ministry of Education and Science of Georgia, 2022).

On 30th August 2024, a framework for doctoral programs was approved to the Accreditation Statute, which supersedes the accreditation standards and covers all aspects of doctoral education from objectives and learning outcomes, to resources, organization, and quality assurance. According to the preamble of the document, it is based on "best national and international practice." Furthermore, it simultaneously determines the precedence of the Salzburg Recommendations, the Vienna Declaration on Artistic Research, and the Bologna Process over the document when interpreting certain norms stipulated therein.

The document is unique, since it is the first ever attempt to specifically design quality standards for doctoral-level studies and define frameworks and assessment indicators clearly. It covers four domains: doctoral education program, supportive services to doctoral students and academic supervision, resources, and quality assurance. The doctoral program's objectives are to develop scientific research activities within higher education institutions (HEIs) and encourage professional networks and collaborations. Doctoral studies are seen to contribute to intellectual, social, cultural, economic, and technological progress by aligning with the needs of the field, state, and society.

The program's academic component is expected to enhance doctoral students' transferable competencies, as well as updated knowledge of the sector, while the research component builds research capabilities and innovative approaches tailored to the specificities of the research field. Additionally, the program is expected to equip doctoral candidates with key competencies such as project management, grant acquisition, leadership, critical analysis of scientific literature, and research implementation. It obligates universities to introduce research ethics in line with international best practices. The standard also covers requirements for students' admission and assessment; it is very clear about the support services of students, including academic supervision and resources (human, financial, and material). Quality Assurance is defined as participatory and covering all aspects of doctoral studies and includes peer review among regular evaluation and monitoring processes.

1.3 Strategies and Programs

Unified National Strategy of Education and Science (2022-2030)**:** This strategic plan outlines Georgia's commitment to increasing public investment in higher education and research. The government aims to develop a new core funding model and a performance-based funding

system by the end of 2025. These initiatives are expected to provide more sustainable and performance-oriented funding to HEIs, potentially benefiting doctoral programs through enhanced institutional support.

The recent main strategic document in the education sector, the Unified Education Strategy 2024-2030, offers several key directions for the development of doctoral education in Georgia, all under the priority objective of quality and relevance. It can be summarized as follows:

1. Increase of Structured Doctoral Programs: The government plans to establish high-quality, structured doctoral programs and schools that align with international standards. These programs will aim to attract talented young researchers from both Georgia and abroad, while reflecting the country's socio-economic needs. As the number of doctoral candidates in selected fields increases, the funding for research will also grow, fostering greater innovation and research potential.

2. Tenure System: A key step in the new governmental approach is the creation of a tenure-based career progression system. This will ensure stability for academic and research staff at higher educational institutions. Employment, evaluation, and incentives for professors and researchers will be based on transparent, quality-focused criteria, encouraging innovative approaches in teaching, research, and innovation. Academic staff will have opportunities for ongoing development throughout their careers.

3. Post-Doctoral and Research Positions, Emeritus Professor System: Legal and financial mechanisms will be revised to provide new academic staff with opportunities for professional development through various training programs. A merit-based system will allow academics more time for research. Additionally, a post-doctoral and research position system will be introduced, supported by an Emeritus Professor system, strengthened by appropriate pension schemes.

The other two priority objectives of the strategy, respectively "Equity, Inclusiveness and diversity" and "governance, financing and accountability" are generic as they mention supporting inclusiveness and gender equity and improving financing of research and sciences towards a more performance-based system.

Doctoral education played a significant role in Georgia's Unified Education and Science Strategy, and the 2017-2021 Action Plan approved by the Government of Georgia (Resolution

N533, 2017), as well. This strategy included various initiatives aimed at integrating scientific research with education and enhancing the internationalization of doctoral programs. It emphasized the necessity for robust collaboration between Georgian and international universities, as well as the establishment of structured, research-oriented doctoral programs. However, progress has been limited, with some initiatives experiencing delays or only partial implementation.

One of the key national initiatives supporting doctoral education in Georgia is the PhD student funding program administered by the International Education Center. Active since 2014, this program has provided essential financial support to 447 doctoral students over six years, disbursing a total of 11,476,284 GEL in grants. These funds have covered tuition, research expenses, and mobility opportunities, helping to strengthen the country's academic and research capacity. However, despite its initial success, the program has experienced a decline in interest, with the number of applications dropping significantly from 376 in 2015 to just 160 in 2018 (Ministry of Education and Science of Georgia, 2019). Another key initiative has been the Grant Internship Competition for Young Scientists Abroad, which operated between 2010 and 2016. Out of 247 applications, 167 projects were funded with a total of 2,361,442 GEL allocated. This program was replaced in 2017 by the grant competition for mobility and international scientific cooperation, which provides funding for both doctoral students and young researchers to attend conferences, participate in seasonal schools, and pursue international collaboration opportunities (Ministry of Education and Science of Georgia, 2019).

Shota Rustaveli National Science Foundation of Georgia (SRNSFG) is the main governmental body supporting doctoral education and research in Georgia.

Key Doctoral Education-Focused Programs:

- PhD Scholarships Programme offers financial support to PhD candidates through competitive grants that cover tuition fees, research expenses, and sometimes stipends.
- Individual Research Grants for Young Scientists target early-career researchers, including doctoral candidates, supporting them to conduct independent research aligned with national priorities.
- International Mobility and Travel Grants enable PhD students to participate in international conferences, research stays, or short-term visits at partner universities and labs abroad.

In addition to national funding mechanisms, Georgia's doctoral students benefit from several international partnerships. Programs like the Rustaveli-DAAD Joint Scholarship Program and collaborations with the Volkswagen Foundation have provided significant support for doctoral education. These partnerships facilitate student mobility and enhance research capacity by allowing Georgian doctoral students to study abroad. The Erasmus+ Scholarships and Marie Sklodowska-Curie Research Scholarship Programs funded by the European Commission also offer valuable opportunities for Georgian doctoral students to participate in international academic networks (European Commission, 2020). Though there are only four programs in MSCR with Georgian university participation.

Despite these positive developments, a challenge remains in ensuring that international opportunities contribute to strengthening doctoral education within Georgia itself. While many students take advantage of scholarships to study abroad, there is limited evidence that these programs have a lasting impact on the development of doctoral education within Georgia.

Georgia has taken significant steps to strengthen its research, innovation, and technology systems. Since 2016, the country has been an associated member of Horizon 2020, providing new opportunities for collaboration and funding in modern research and innovation development. On December 7, 2021, an international agreement was signed to establish Georgia's participation in the Horizon Europe framework program, further enhancing access for Georgian representatives to participate in program competitions and activities. Georgian researchers now have the same rights as those from EU member states and can compete for a share of the €95.5 billion budget allocated for research and innovation.

As part of this agreement, Georgian universities and research institutions are empowered to lead large international scientific consortia and collaborate with European colleagues to develop and implement international doctoral programs. The Georgian Parliament has ratified the association agreement with Horizon Europe, and a membership fee of €1,759,677.23 for 2021 has been paid.

To support higher education and research activities within this framework, grant offices for Horizon Europe have been established in ten universities to disseminate information about EU competitions and assist Georgian research teams in preparing and managing competitive project applications.

Furthermore, the Rustaveli Foundation has renewed its research funding scheme, supporting initiatives to strengthen the link between research and business. This includes a pilot technology transfer program initiated by the Georgian Innovation and Technology Agency, funded by the EU, to support the commercialization of science projects tailored to market needs. These efforts aim to boost the country's innovation ecosystem, improve entrepreneurial skills, and develop technological infrastructure while fostering greater engagement in STEM fields among youth.

The Competitive Innovation Fund (CIF) is a key initiative by the Georgian government to enhance higher education, including doctoral programs. Established under the "Georgia I2Q – Innovation, Inclusion and Quality" project, CIF aims to modernize academic programs, improve learning environments, and strengthen labor market connections.

CIF provides grants to public higher education institutions (HEIs) and consortia involving public and private HEIs. Notably, among others, CIF supports the development of structured doctoral programs through:

- Joint academic programs with international institutions, leading to joint or double degrees.
- Programs tailored to labor market needs, including practice-oriented curricula.
- Collaborations with industry to align doctoral education with employer requirements.
- Modernization of infrastructure, such as upgrading laboratories and enhancing e-learning methods.

These initiatives aim to foster innovation in teaching and learning, ensuring that programs are responsive to both academic and industry demands.

The second CIF call, announced on September 28, 2023, emphasized the development of academic programs in fields like Natural Sciences, ICTs, Engineering, Agriculture, Education, and Health. It encouraged:

- Joint program development with foreign HEIs for international accreditation.
- Enhancement of teaching methods, including the use of technology and modern pedagogical approaches.

- Strengthening of practical components in academic programs to boost students' practical skills.

Through the second call, IDEG - Internationalization of Doctoral Education was funded.

These efforts are designed to align doctoral education with international standards and labor market needs, promoting both academic excellence and employability.

Commentary

The terminology and definitional foundations of Georgian doctoral education, as outlined in Chapter I, reveal both commendable progress and critical ambiguities. The Law on Higher Education (2005) provides a baseline legal definition of a doctoral program as a blend of educational and research components. This formal alignment with the Bologna Process and the Salzburg Principles marks an important step in integrating Georgian doctoral education into the European Higher Education Area (EHEA). However, as Georgian scholars have argued, this definition lacks conceptual clarity, particularly in failing to assert the primacy of research. By presenting education and research as equal pillars, the law risks obscuring the core identity of the doctorate as a research-intensive qualification.

Moreover, the law does not describe or permit the full spectrum of doctoral degrees that exist internationally, such as professional, industrial, or practice-based doctorates. This limitation constrains the system's ability to accommodate diverse research outputs and modes of doctoral study. Expanding the legal framework to recognize and support different types of doctoral degrees would present a valuable opportunity to diversify research outputs and foster innovation in both academic and applied contexts.

Several essential terms, including post-doctoral fellow, dissertation council, structured program, and joint supervision, *are* introduced in law and policy but are often inconsistently interpreted or weakly operationalized in practice. For instance, although "structured doctoral program" is emphasized in strategic frameworks and CIF-funded initiatives, its precise meaning remains elusive. It is unclear whether the term implies defined milestones, interdisciplinary research opportunities, cohort models, or integrated transferable skills

training. This definitional vagueness limits both implementation consistency and quality assurance.

The legal framework, though foundational, is broad and generalist. It outlines the existence of institutional structures such as dissertation councils and postdoctoral roles. However, it provides insufficient guidance on critical operational issues such as co-supervision models, inter-institutional collaboration, and student support mechanisms. These omissions lead to a fragmented and uneven landscape of doctoral provision across institutions.

The adoption of the 2024 Framework Document for Doctoral Education marks a significant evolution in the national approach. It introduces a more transparent structure across four core domains: program content, supervision, resources, and quality assurance. Importantly, it incorporates global benchmarks such as the Salzburg II Recommendations and emphasizes emerging priorities like research ethics, internationalization, and transferable skills. While the framework is a promising development, its practical implementation across the sector will depend on institutional capacity-building, guidance for consistent interpretation, and regular monitoring of outcomes.

Overall, Georgia's evolving framework reflects an aspiration to harmonize with international doctoral standards. Nevertheless, to ensure clarity, coherence, and comparability, a shared national glossary of doctoral education terminology could be developed, anchored in European frameworks but adapted to the Georgian context. Such a tool would enhance alignment across legislation, accreditation, and institutional practice, facilitating both domestic quality enhancement and international collaboration.

Chapter II - Secondary data describing the Doctoral provision in Georgia (based on data provided by EMIS, NCEQE, NSRSF, IEC)

2.1 Introduction

Following a comprehensive data request to gather all existing information relevant to doctoral education from key institutions, including EMIS, the National Science Foundation, the International Education Centre, and NCEQE, the following analysis was conducted. This initiative sought to obtain data spanning 2019-2023 for enrollments and 2020–2024 graduation statistics. Data was requested on doctoral students: enrollments, graduations, gender distribution, age demographics, nationality, student-supervisor ratios, funding, academic exchange opportunities, and program evaluations. The data is presented aggregately and, where possible, by specific fields of study and forms of ownership of academic institutions. While the requested data supports certain conclusions, the accuracy of the available information remains limited. To calculate graduation by cohort, we defined 'on-time graduation' as completion within three years of enrollment. For example, individuals enrolled in 2019 and graduating in 2022 were classified as graduating on time. The same calculation was applied to those enrolled in 2020 and graduating in 2023, as well as the 2021 cohort graduating in 2024. Notably, among the 2330 graduates between 2020 and 2024, in 24 cases the study duration was less than three years. This is inconsistent with the Law on Higher Education, which mandates a minimum duration of three years for PhD studies. According to the letter received from EMIS, these individuals were students who either completed mobility or reactivated their status and received ECTS credits recognition. This underscores the need for cautious interpretation of the findings, as limitations in data completeness and granularity may affect the depth and reliability of the analysis. Nonetheless, the collected datasets provide valuable insights into key aspects of doctoral education, informing further research and strategic discussions.

PhD Programs

The distribution of doctoral programs in Georgia reveals marked differences by institutional type. Out of the total 233 accredited programs, a clear majority – 166 - are offered by public universities, while private institutions account for 67 programs. This imbalance is especially pronounced in specific fields. Public institutions dominate in areas requiring more substantial

infrastructure and research support, such as Engineering and Technology (22 public vs. 5 private), and Exact and Natural Sciences (30 public vs. 9 private). Meanwhile, private universities are more active in Social Sciences, Law, and Business, where they offer 39 of the 92 programs. This suggests that private institutions tend to concentrate their efforts in fields that are less resource-intensive and have broader market demand.

Fields	Private	Public	Total
Agricultural Sciences	2	10	12
Engineering and Technology	5	22	27
Exact and Natural Sciences	9	30	39
Humanities and Arts	8	42	50
Medical and Health Sciences	4	9	13
Social Sciences, Law, and Business	39	53	92
Total	**67**	**166**	**233**

Table 1. Program distribution between public and private institutions according to the field

In terms of field-wide distribution, the most common doctoral programs are in Social Sciences, Law, and Business, comprising nearly 40% of all offerings. Humanities and Arts follow with 50 programs, while the Exact and Natural Sciences remain a stable third. Fields such as Agricultural Sciences and Medical and Health Sciences are smaller in number, which may reflect lower overall demand or the specialized nature of these disciplines. Public institutions also show a greater commitment to sustaining these programs, as they carry nearly all of the offerings in health, agriculture, and engineering.

Doctoral education in the country exhibits a pronounced regional concentration, with the overwhelming majority of programs located in the capital city. Out of 233 programs nationwide, 202 are situated in the capital, leaving only 31 distributed across all other regions. This imbalance spans every disciplinary field and underscores the centralization of doctoral training within urban academic hubs. For instance, 25 of the 27 engineering programs are capital-based, while all 13 medical and health sciences programs are offered exclusively there. Even disciplines with comparatively modest infrastructural requirements, such as the Humanities and Social Sciences, display limited regional distribution. Consequently, the doctoral education system is effectively centralized in a single urban center, thereby constraining accessibility and perpetuating regional disparities in research participation and talent development.

Fields	Regional	Capital	Total
Agricultural Sciences	5	7	12
Engineering and Technology	2	25	27
Exact and Natural Sciences	7	32	39
Humanities and Arts	8	42	50
Medical and Health Sciences		13	13
Social Sciences, Law, and Business	9	83	92
Total	**31**	**202**	**233**

Table 2. Program distribution between regional and capital universities according to the field

The language of instruction provides further insight into the structure of doctoral education. Of the 233 programs, 207 are taught in Georgian, while only 25 are offered in English, and just one combines both languages. English-medium programs appear in both public and private universities nearly equally (12 and 13, respectively), indicating some initiative across both sectors to internationalize doctoral offerings. These English-language programs are more commonly found in fields such as Social Sciences and Engineering, and are concentrated in the capital. This indicates a selective internationalization strategy, where global-facing programs are aligned with academic disciplines perceived as having transnational relevance or appeal. Georgian remains the default language of instruction, which preserves national academic traditions but may constrain broader participation in international scholarly networks.

Field	English	Georgian	Georgian/English	Total
Agricultural Sciences		12		12
Engineering and Technology	2	25		27
Exact and Natural Sciences	4	35		39
Humanities and Arts	3	47		50
Medical and Health Sciences	2	10	1	13
Social Sciences, Law, and Business	14	78		92
Total	**25**	**207**	**1**	**233**

Table 3. Program distribution according to the language of instruction, based on the field

When the data is reviewed across these dimensions, specific patterns become clear. Doctoral education in Georgia is centralized mainly in terms of governance, geography, and linguistic orientation. Public universities serve as the backbone of the system, especially in fields with higher research demands, while private universities play a supportive role, mainly in applied and social fields. The capital city hosts the overwhelming majority of doctoral programs, and the dominant language of instruction remains Georgian, despite the emergence of English-

taught offerings. These patterns reveal the underlying structure of the country's doctoral education framework and hint at both its strengths and its current limitations.

Language of instruction	Private	Public	Total
English	13	12	25
Georgian	53	154	207
Georgian/English	1		1
Total	**67**	**166**	**233**

Table 4. Program distribution between public and private institutions according to the language of instruction

Demographics

2.2 Enrolments 2019-2023

The total number of PhD enrollments declined by nearly 24% from 2019 to 2023, showing notable variation between public and private higher education institutions, with a significant decline in admissions at public universities (see Table 5 below). In contrast, private universities experienced a slight but inconsistent increase in PhD enrollments during the same period.

Type/ Year	2019		2020		2021		2022		2023	
	N	%	N	%	N	%	N	%	N	%
Public	965	80.3%	799	76.8%	674	74.4%	578	66.1%	655	71.4%
Private	237	19.7%	242	23.2%	232	25.6%	296	33.9%	262	28.6%
Total	1202	100%	1041	100%	906	100%	874	100%	917	100%

Table 5. Enrolments by type of university, 2019-2023

State universities still enroll the majority of students, but their admissions have declined both in absolute numbers and as a share of total enrollments compared to private universities. Generally, private universities concentrate on low-cost subjects with low infrastructural costs.

2.2.1 Distribution of new enrolments by subject area

There was a consistent trend across academic fields, with a decline in absolute enrollment numbers in Agricultural Sciences, Exact and Natural Sciences, Engineering and Technology, as well as Medicine and Health Sciences. In contrast, there was an upswing in the Humanities and Arts. Notably, the number of PhD candidates enrolled in interdisciplinary programs remains the lowest, which may be attributed to the absence of such programs (see Table 6).

Fields	2019	2020	2021	2022	2023	Total
Agricultural Sciences	27	17	12	13	16	85
Exact and Natural Sciences	102	101	100	95	87	485
Engineering and Technology	180	137	76	64	61	518
Medicine and Health Sciences	131	102	114	122	105	574
Social Sciences, Business and Law	612	498	434	469	484	2497
Other (Interdisciplinary)	2	5	3	2	0	12
Humanities and Arts	148	181	167	109	164	769
Total	1202	1041	906	874	917	4940

Table 6. Number of enrolments by fields and year

Figure 1 below illustrates shifts in the distribution of enrollments across academic fields. Between 2019 and 2023, the share of PhD candidates in Engineering and Technology declined significantly from 15% to 6.7%, while the share in Humanities and Arts increased from 12.3% to 17.9%. Throughout this period, more than 50% of total enrollments were primarily concentrated in the field of Social Sciences, Business Administration, and Law.
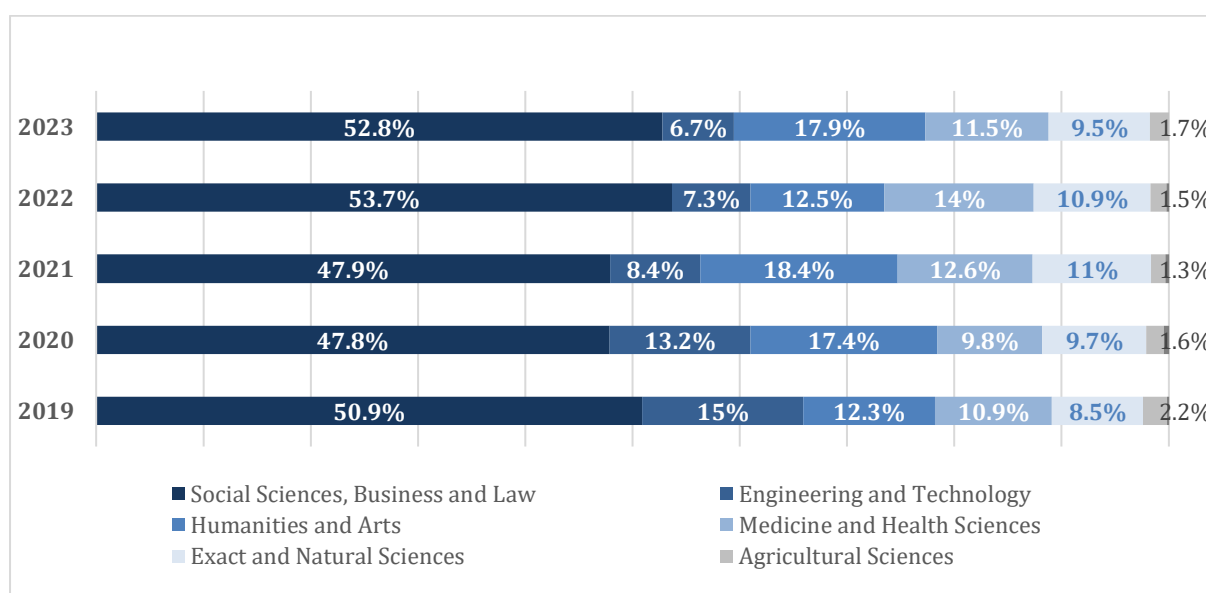
Figure 1. Share of enrolments by academic sector and year

2.3 Demographics of students[1]

2.3.1 Age

The average age of doctoral students in European Union countries is 33[2]. The age of a doctoral student in Georgia ranges between 24 and 88, with a median age of 35.

Fields	Female Age			Male Age		
	Mean	Minimum	Maximum	Mean	Minimum	Maximum
Agricultural Sciences	38	26	59	36	25	76
Exact and Natural Sciences	36	25	65	34	24	78
Engineering and Technology	40	25	75	35	25	77
Medicine and Health Sciences	40	25	70	40	26	63
Social Sciences, Business, and Law	38	24	74	37	25	88
Other (Interdisciplinary)	41	26	64	36	28	53
Humanities and Arts	38	25	77	37	25	72

✳✳ *The table includes data for students with active and suspended statuses; students with terminated status are excluded*

Table 7. Average age by field and gender

Table 7 presents the age distribution of doctoral candidates in Georgia by gender and academic field. The overall mean age is slightly higher for females (38) than for males (36). Across fields, female doctoral students show a broader age range, with maximum ages reaching 59-77, suggesting prolonged engagement in studies. Interdisciplinary fields show the highest mean age (41), possibly indicating career-shifting professionals. Males show a slightly younger mean age in Exact and Natural Sciences. Notably, the minimum age starts from 24-25 in most fields, indicating entry shortly after master studies for a subset of candidates.

---

[1] The tables and figures in this subchapter are based on EMIS data, which includes demographic information for all students registered in the EMIS database as of September 18, 2024. This dataset covers students with active, suspended, and terminated statuses and includes the following variables: HEIs, type of HEIs, region, PhD program, language of instruction, gender, age, enrollment status as of the reference date and the number of cases.

[2] Eurostat. (2025). Pupils and students enrolled by education level, sex and age (educ_uoe_enra02) [Data set]. European Commission. Retrieved July 18, 2025, from https://ec.europa.eu/eurostat/databrowser/view/educ_uoe_enra02__custom_17533303/default/table?lang=en

2.3.2 Gender

Among doctoral students with active and suspended status, females constitute 56.2% (Table 8); however, the proportion of female students varies across academic fields (Figure 2). According to Eurostat, in the European Union, during 2023, female students accounted for 49.2% of those studying for doctoral degrees. [3]

Gender	Tbilisi		Region		Total	
	N	%	N	%	N	%
Female	4155	56%	250	58.7%	4405	56.2%
Male	3259	44%	176	41.3%	3435	43.8%
Total	7414	100%	426	100%	7840	100%

∗∗ *The table includes data for students with active and suspended statuses; students with terminated status are excluded*

Table 8. Gender and regional distribution of students (Active + Suspended statuses)

The gender distribution of doctoral students shows a female majority (see Table 8) in both Tbilisi (56%) and the regions (58.7%). Nationally, women comprise 56.2% of all doctoral candidates. This indicates a consistent gender trend across locations, with slightly higher female representation outside the capital.

Gender	Tbilisi		Region		Total	
	N	%	N	%	N	%
Female	2059	48.8%	217	51.9%	2276	49.1%
Male	2161	51.2%	201	48.1%	2362	50.9%
Total	4220	100%	418	100%	4638	100%

Table 9. Gender and regional distribution of students with terminated status

Analysis of students with Terminated status reveals a slight gender disparity across regions. In Tbilisi, male students constitute 51.2% of terminated cases, slightly exceeding the 48.8% represented by female students. In contrast, regional areas show a reversed trend, with female students accounting for 51.9% of terminated statuses compared to 48.1% for males. Overall, males comprise 50.9% of terminated cases, while females represent 49.1% (See Table 9). Unfortunately, the EMIS database does not provide information on the enrollment dates or the timing of status termination for these students.

---

[3] Eurostat. (2025). Pupils and students enrolled by education level, sex and age (educ_uoe_enra02) [Data set]. European Commission. Retrieved July 18, 2025, from https://ec.europa.eu/eurostat/databrowser/view/educ_uoe_enra02__custom_17533303/default/table?lang=en
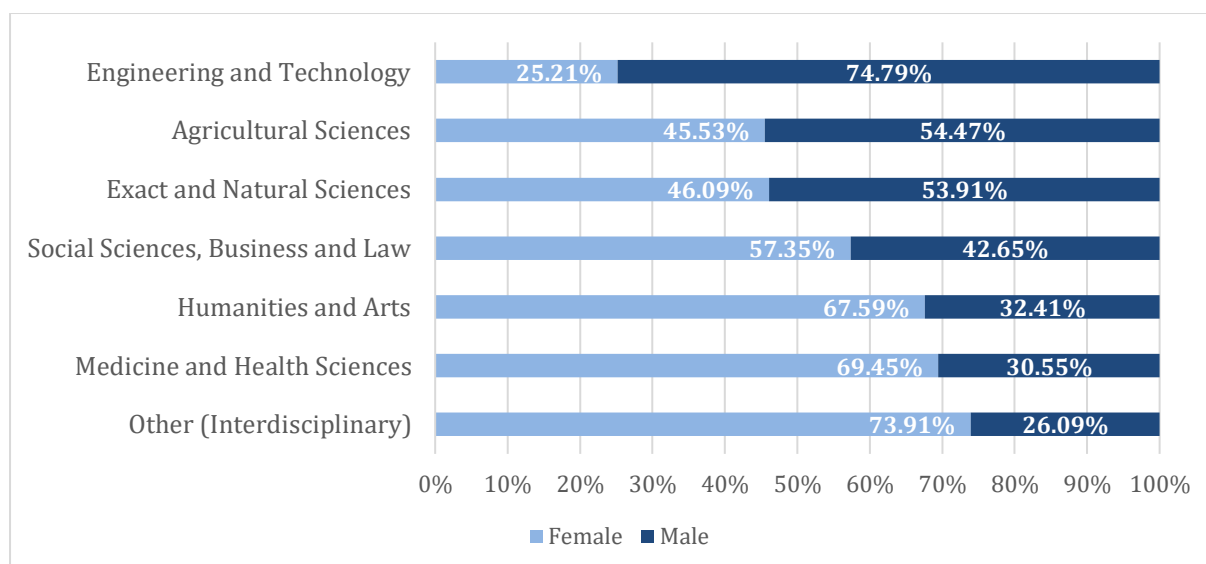
Figure 2. Students by field of study and by gender

According to the EMIS database on student demographics, among PhD students with active and suspended statuses, the proportion of female students is higher in fields such as Medicine and Health Sciences; Humanities and Arts; and in Social Sciences, Business, and Law. In contrast, the share of male students is significantly higher in Engineering and Technology (74.79%) and slightly higher in Agricultural Sciences and Exact and Natural Sciences (see Figure 2).

Student Performance

2.4 Graduation

According to EMIS data on graduations between 2020 and 2024, which also includes students' enrollment years, a total of 2,328 PhD students graduated during this period. Under the Law on Higher Education of Georgia, the minimum duration of a doctoral program is three years. However, in 24 cases, the recorded study duration was less than three years (indicated with *), which is inconsistent with legal requirements. These individuals were mobility students who transferred between institutions or reactivated their status, having it terminated or suspended before.

To calculate graduation by cohort, 'on-time graduation' was defined as completion of studies within three years of enrollment. For instance, students enrolled in 2019 and graduating in

2022, those enrolled in 2020 and graduating in 2023, and students from the 2021 cohort graduating in 2024 were all classified as on-time graduates.

Out of the 2328 total graduates, 398 (17.1%) were classified as graduating on time, based on this method and tracking enrollments from 2017 onward (see Table 10). However, the EMIS database does not clearly indicate whether the year of enrollment reflects actual first enrollment or includes the year of institutional transfer (mobility). If the latter is the case, the number of on-time graduates may be overestimated.

Enrollment Year	Graduation Year				
	2020	2021	2022	2023	2024
2006	2	2	1	2	2
2007		3	2	1	
2008	5	5	2	2	2
2009	4	7	8	6	6
2010	12	13	7	12	12
2011	9	17	9	14	11
2012	18	9	11	16	8
2013	16	19	19	15	15
2014	38	31	24	22	16
2015	54	54	34	26	17
2016	124	74	63	34	35
2017	56	130	57	52	35
2018	*7	68	116	82	48
2019	*2	*3	58	201	84
2020		*4	*1	110	132
2021			*1	*3	106
2022					*2
2023					*1
Total	347	439	413	598	532

Table 10. Graduation Statistics 2020-2024 by Year of Enrollment

A comparison of EMIS enrollment and graduation data (see Table 5 and Table 10) provides insight into on-time graduation rates. For the 2019 cohort, whose three-year study period

concluded in 2022, 1,202 students were enrolled, and 58 graduated on time, representing 4.8% of that cohort. In 2020, 1,041 students enrolled, with 110 graduating on time in 2023 (10.6%). For the 2021 cohort, 906 students enrolled, and 106 graduated on time in 2024, yielding an on-time graduation rate of 11.7% (See Table 11).

Year of Enrollment/Graduation	2019-2022	2020-2023	2021-2024
Total **Enrollments**/**Graduations** within 3 years	1202/58	1041/110	906/106
Public HEIs: **Enrollments**/ Graduations within 3 years	965/31 (3.2%)	799/100 (12.5%)	674/76 (11.3%)
Private HEIs: **Enrollments**/ **Graduations** within 3 years	237/27 (11.3%)	242/10 (4.1%)	232/30 (12.9%)

Table 11. Graduation Statistics (2022-2024) by Enrollment Cohorts (2019-2021)

Another dataset provided by EMIS includes graduation statistics from 2019 to 2023, categorized by institution type (public or private), region, and field of study; however, it does not include enrollment year data. Graduation data indicate that the majority of graduates come from public universities (Figure 3), which is expected given that state institutions typically enroll a larger proportion of PhD students (See Table 5).
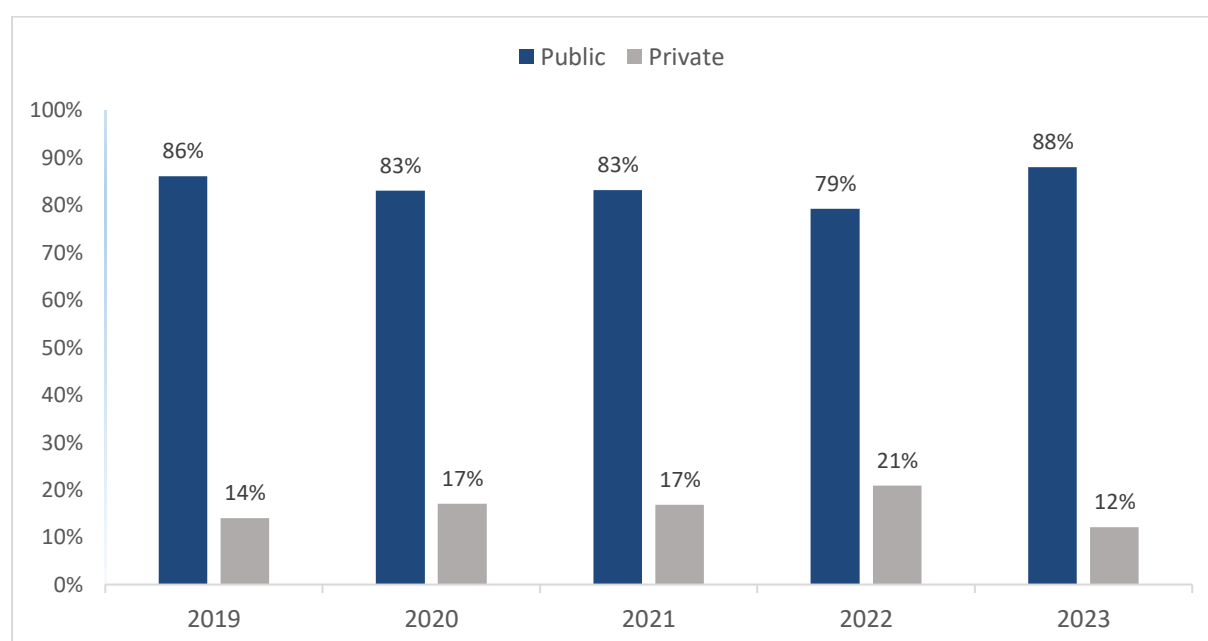
Figure 3. Graduation from Private and State universities, 2019-2023

Graduation numbers by field of study show that Social Sciences, Business and Law, followed by Humanities and Arts, produce the highest number of graduates annually (see Table 12), reflecting broader enrollment patterns (see Table 11).

Fields	2019	2020	2021	2022	2023	Total
Agricultural Sciences	11	1	10	12	17	51
Exact and Natural Sciences	60	15	56	46	58	235
Engineering and Technology	68	35	65	34	122	324
Medicine and Health Sciences	52	40	40	63	69	264
Social Sciences, Business, and Law	172	172	192	188	249	973
Other (Interdisciplinary)	5	9	2	2	1	19
Humanities and Arts	83	75	73	68	82	381
N/A	0	0	1	0	0	1
Total	451	347	439	413	598	2248

Table 12. Annual Number of Graduates by Field of Study (2019-2023)

As Table 13 indicates, from 2019 to 2023, Social Sciences, Business, and Law consistently accounted for the largest share of graduates, peaking at nearly 50% in 2020 and remaining above 40% in all years except 2019. Engineering and Technology experienced a notable spike in 2023, rising to 20.4% after dropping to 8.2% in 2022. Exact and Natural Sciences showed a significant dip in 2020 (4.3%) but otherwise remained between approximately 9.7% and 13.3%, while Medicine and Health Sciences stayed relatively stable below 15%. Agricultural Sciences and Interdisciplinary fields consistently represented a tiny proportion of graduates throughout the period.

Fields	2019	2020	2021	2022	2023
Agricultural Sciences	2.4%	0.3%	2.3%	2.9%	2.8%
Exact and Natural Sciences	13.3%	4.3%	12.8%	11.1%	9.7%
Engineering and Technology	15.1%	10.1%	14.8%	8.2%	20.4%
Medicine and Health Sciences	11.5%	11.5%	9.1%	15.3%	11.5%
Social Sciences, Business, and Law	38.1%	49.6%	43.7%	45.5%	41.6%
Other (Interdisciplinary)	1.1%	2.6%	0.5%	0.5%	0.2%
Humanities and Arts	18.4%	21.6%	16.6%	16.5%	13.7%
Total	100%	100%	100%	100%	100%

Table 13. Proportion of Graduates by Field of Study (2019-2023)

Figure 4 presents graduation rates from 2019 to 2023 across doctoral education programs in Georgia. The data shows significant variation in the number of graduates among universities. Georgian Technical University consistently reports the highest graduation numbers, with a notable increase in 2023. Other institutions, such as Batumi Shota Rustaveli State University and Ilia State University, have moderate and fluctuating graduation rates, while many smaller universities display low and sometimes irregular graduation figures.

HEI	2019	2020	2021	2022	2023
Georgian Technical University	203	150	188	156	330
TSU	90	64	91	69	71
Batumi Shota Rustaveli State University	28	19	28	38	19
Tbilisi State Medical University	19	18	15	20	37
Ilia State University	16	17	8	17	20
Sokhumi State University	12	7	12	12	12
St. Andrews Georgian University (SANGU)	10	21	7	3	1
University of Georgia	8	8	16	21	11
Black Sea International University	8	9	10	11	8
David Tvildiani Medical University	7	2	2	3	0
Telavi State University	6	1	0	0	1
David Aghmashenebeli University of Georgia	6	2	6	4	6
Agricultural University of Georgia	5	0	1	5	5
Shota Rustaveli Theatre and Film University	5	3	7	5	6
Akaki Tsereteli State University	4	7	9	7	25
Caucasus University	4	1	0	8	10
Tbilisi State Academy of Arts	3	1	2	0	1
New Vision University	2	1	3	7	3
GIPA	2	0	2	1	0
Caucasus International University	2	6	6	9	14
Georgian Aviation University	2	3	3	0	1
Kutaisi University	2	1	1	5	0
Eastern European University	2	0	2	1	1
Tbilisi Theological Academy and Seminary	1	0	0	0	0
Tbilisi State Conservatoire	1	0	2	0	3
Samtskhe-Javakheti State University	1	1	3	3	1
Tbilisi Free University	1	1	2	3	2
Georgian American University (GAU)	1	2	3	1	5
New Georgia University	0	0	0	2	0
Business and Technology University	0	2	1	0	0
Grigol Robakidze University	0	0	9	2	5

Figure 4. Graduation rates from 2019 to 2023 across doctoral education programs

2.5 Overview of Student Status Statistics

This subchapter is based on data provided by EMIS, containing demographic information for all students registered in the EMIS database as of September 18, 2024. The dataset includes students with active, suspended, and terminated statuses. It covers variables such as HEIs, type

of HEIs, region, PhD program, language of instruction, gender, age, student status on the reference date, and total case count[4].

The total number of registered PhD students is 12,478. As of the reference date, 23.4% of doctoral students are classified as "active". Table 14 presents the overall distribution of students by status, while Table 15 provides a breakdown of student statuses by field of study.

Status	N	%
Active	2914	23.4
Suspended	4926	39.5
Terminated	4638	37.2

Table 14. Registration Status of Doctoral Students (as of September 18, 2024)

To be clear, the data shows that 23.4% of registered doctoral students are classified as active. The Ministry of Education has already drawn attention to these figures in their new policy guideline and pending strategy for Doctoral provision. The reason for suspension is diverse, with the main reason being a lack of funding and legislative regulations that allow for the suspension of the status for 5 years, with the possibility of repetition. Recently, a new amendment concerning the duration of status suspension has been introduced: according to the change, students can suspend their status for a total of 5 years.

The following table shows the proportion of doctoral students by status across major fields of study.

Fields	Active	Suspended	Terminated	Total
Agricultural Sciences	28.86%	32.34%	38.81%	100%
Exact and Natural Sciences	22.56%	39.91%	37.54%	100%
Engineering and Technology	15.82%	42.34%	41.85%	100%
Medicine and Health Sciences	42.67%	32.65%	24.68%	100%
Social Sciences, Business, and Law	24.30%	45.67%	30.03%	100%
Humanities and Arts	27.41%	43.63%	28.97%	100%
Total	23.4%	39.5%	37.2%	100%

Table 15. Proportion of Doctoral Students by Status and Field of Study

The highest proportion of active doctoral students is found in Medicine and Health Sciences (42,67%). In comparison, Engineering and Technology has the lowest share of active students (15.82%) and the highest share of those with terminated status (41.85%).

---

[4] For example, the dataset contained 7,874 rows, with a column indicating the number of cases each row represents. Summing these values, the total number of cases amounted to 12,478.

In terms of Gender, female students constitute the majority across all statuses (see Table 16), representing 59.1% of active students and 54.5% of suspended students. Among terminated students, the gender distribution is nearly even, with females accounting for 49.1% and males 50.9%.

Status	Female	Male	Total
Active	59.09%	40.91%	100%
Suspended	54.47%	45.53%	100%
Terminated	49.07%	50.93%	100%
Total	53.54%	46.46%	100%

Table 16. Proportion of Doctoral Students by Status and Gender

However, within the 22–27 age group, the distribution differs significantly. Of this group, 75.5% (447 cases) are classified as active, with male students comprising 58.2% of the active students and female students 41.8% (see Table 17). This age group represents 20.3% (592 cases) of all active students (2914 cases).

Status	Female	Male
Active	41.8%	58.2%
Suspended	50.4%	49.6%
Terminated	33.3%	66.7%

Table 17. Proportion of doctoral students by status and gender (22-27 age group)

In terms of the type of higher education institutions, private universities have a slightly higher proportion of active students (26.2%) compared to public universities (22.4%) (see Table 18 below). We may assume that the active status of male students could be caused by their desire to avoid mandatory military service, which is until age 27, and having a student status provides this possibility.

Type	Active	Suspended	Terminated	Total
Public	22.4%	40.5%	37%	100%
Private	26.2%	36.2%	37.6%	100%
Total	23.4%	39.5%	37.2%	100%

Table 18. Proportion of doctoral students by type of HEIs and status

Dzotsenidze's (2022) study revealed the main factors at individual, institutional, and system levels that contributed to low levels of completion. The author suggested that at the individual student level, there are three factors hindering progression toward degree completion: (i) financial,(ii) academic, and (iii) emotional.

Regarding the institutional level, she found (i) student-supervisor interaction, (ii) intellectual stimulation, and (iii) academic and infrastructural resources. The research also revealed two system-level barriers, such as (i) policy flaws and (ii) policy practice gaps.

2.6 Student Funding

The primary source of funding for doctoral students in Georgia is the Shota Rustaveli National Science Foundation (SRNSFG). Figure 5 illustrates the annual trends in grants issued from 2013 to 2023, while Table 19 presents the distribution of awarded grants by field.
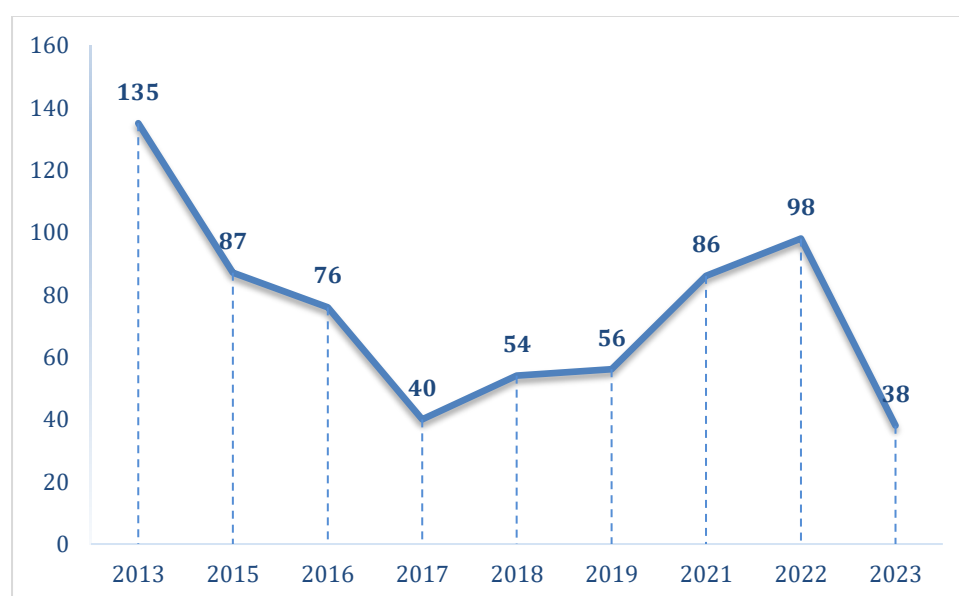
Figure 5. Funded PhD proposals from 2013 to 2023 (provided by the SRNSFG 2025)

The number of research grants issued decreased from 2013 to 2017, then showed an upward trend until 2022, followed by a steep decline in 2023. In 2023, the number of funded students dropped to 38, marking the lowest level in the history of the grant call.

Table 19 presents data on funded research proposals across academic fields in Georgia between 2013 and 2023, based on figures provided by the SRNSFG in 2024. Over this period, 710 proposals were funded, with the highest numbers in Exact and Natural Sciences (24.6%), Humanities and Arts (21.5%), and Social Sciences, Business and Law (20.7%). These results highlight the broad orientation of national research funding across STEM and SSH disciplines.

A noticeable shift appears in the years following 2020, where fields such as Health and Medical Sciences saw increased support - particularly in 2021 and 2022 - likely reflecting the impact of the COVID-19 pandemic and the heightened importance of biomedical and public health

research. This period also saw strengthened interest in research tied to social systems and cultural resilience, contributing to stable funding levels in the humanities and social sciences.

While Engineering and Technology (10.7%) and Agricultural Sciences (4.2%) received comparatively lower shares of funding, the establishment of Georgian Studies as a separate category in 2016 and its continued support reflect a strong institutional interest in promoting national identity and cultural research. The lower funding shares for Engineering and Technology and Agricultural Sciences are likely due to budget allocation proportions specified in the research grant calls. For example, the 2024 grant call terms and conditions allocate 25% of the budget to Exact and Natural Sciences (the highest share), while Engineering and Technology and Agricultural Sciences receive lower allocations of 10% and 5%, respectively.

Year	Exact and Natural Sciences	Engineering and Technology	Health and Medical Sciences	Agricultural Sciences	Social Sciences, Business, and Law	Humanities and Arts	Georgian Studies
2013	22	23	10	3	*70		7
2014	11	9	9	7	*42		9
2016	26	7	13	3	14	13	N/A
2017	11	1	11	2	6	7	2
2018	15	5	3	3	13	10	5
2019	21	5	5	1	9	12	3
2021	26	5	10	3	15	23	4
2022	25	11	14	5	21	16	6
2023	8	5	6	1	7	8	3
2024	10	5	8	2	6	8	1
	175	76	89	30	*147	*153	40
Total	24.6%	10.7%	12.5%	4.2%	20.7%	21.5%	5.6%

∗*Estimated where 2013/4 figures are equally spread over social science and humanities*

Table 19. Funded proposals by Fields (based on data provided by the SRNSFG 2025)

2.7 Internationalization

Georgia intensively benefits from the international dimension of the 2021-2027 Erasmus+ programme and is taking part in the European Higher Education Area working groups 2021-2025. In January 2024, Georgia joined the Eurydice Network, whose task is to explain how education systems are organised in Europe and how they work (2024:80). Regarding the Bologna Process implementation report 2024, Georgia still needs to work on the full implementation of the key commitments, such as the Bologna degree structure and automatic

recognition. Georgia scores below average when it comes to alignment with the social dimension of the European Higher Education Area.

International doctoral candidates represent a relatively low proportion of the total doctoral student population in Georgia. One of the primary reasons for this is the limited availability of PhD programs offered in English. As most doctoral programs are conducted in Georgian, international applicants may face significant language barriers, which can discourage them from applying. Additionally, the scarcity of English-taught programs restricts the accessibility and attractiveness of Georgian universities for prospective students from abroad. As a result, despite Georgia's efforts to internationalize its higher education system, the number of international doctoral candidates remains modest.

In general, the majority of international students studying in Georgia are students majoring in medicine, and we observe a growing tendency over the years, though this does not resonate as much later with interest in doctoral education.

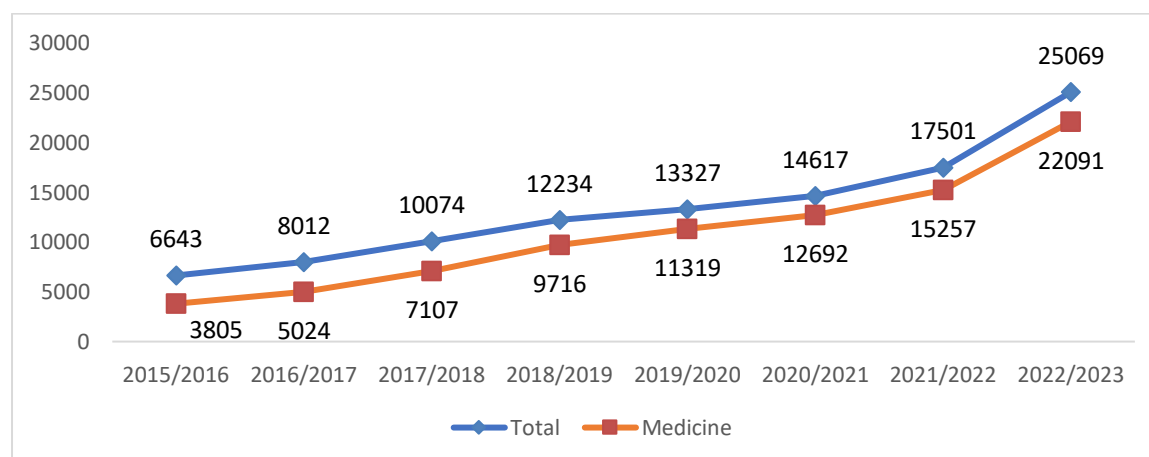*Figure 6. International student numbers in all fields and medicine, 2015-2022*

The International Education Centre provides international engagement with other countries. They show that 68 doctoral programmes have joint features with 10 countries (the largest being the USA, 32%; Hungary, 18%; UK, 18%; and Germany, 7%). There is a wide range of disciplinary areas, but only 5 seem to run beyond 2024.

Commentary

The analysis of secondary data from EMIS, NCEQE, the Shota Rustaveli National Science Foundation, and the International Education Centre provides a multidimensional view of the current state of doctoral education in Georgia. Despite the limitations in data granularity and comparability - particularly regarding cohort-based trends, the findings offer clear insights into systemic patterns and persistent challenges.

Doctoral enrolments have shown a modest but concerning decline since 2020, particularly within state universities and STEM-related fields such as engineering and technology. While social sciences, business, and humanities continue to dominate student choices, this imbalance raises questions about Georgia's long-term alignment with research-driven economic priorities. The consistently high average age of doctoral students - 35 years - and the greater representation of females suggest that doctoral education is often pursued mid-career, with many students balancing employment and family responsibilities. However, this demographic reality remains insufficiently supported by flexible program designs and funding mechanisms.

Completion rates are notably low: only 23.4% of enrolled students are classified as active. This may reflect institutional and systemic issues, including inadequate supervision models, limited financial support, weak academic infrastructure, and unclear progression pathways. Private universities, though smaller in scale, exhibit slightly higher activity rates.

Funding data shows a fluctuating but overall inclusive approach across disciplines, with the Rustaveli Foundation supporting both scientific and humanities-based research. However, the post-2022 decline in funded doctoral proposals signals the fragility of this support and the need for more stable, transparent, and strategic funding mechanisms - particularly for priority sectors.

Internationalization remains limited in scope and impact. The number of foreign doctoral students is declining, and the infrastructure for English-language delivery is underdeveloped. Despite Georgia's participation in Erasmus+, Horizon Europe, structural reforms are still needed to position the country as a credible actor in the global research community.

This suggests that changes are needed in recruitment, support processes, and possibly the diversity of doctoral programmes offered, to better align with the needs of older students who

have jobs and wish to pursue doctoral-level study, thereby supporting their careers. The EHEA widely recognises such new models of doctoral study.

To rectify this issue, there is a clear need for policy direction and funding. Doctoral education, particularly when focused on entrepreneurial ideas, is highly valuable to the economy; however, support for this area remains limited. The geopolitical situation in Georgia may influence incentives for pursuing doctoral education abroad. Although we lack specific data, this is unlikely to be an immediate path for many aspiring students.

There is no shortage of expertise within Georgian academia to develop and implement such a strategy. However, greater coherence is needed across the sector to align national and international development goals.

While Georgia's doctoral education system demonstrates potential, it is characterized by fragmentation, underutilization of human capital, and insufficient integration with labor market and innovation agendas.

Chapter III - Student Experience Survey

3.1 Introduction

The survey developed for this project part aimed to investigate student experiences in several areas of concern regarding their doctoral experiences that emerged from the literature. The survey was designed to align, although not to replicate directly, 'The Postgraduate Research Experience Survey (PRES)'(2023), conducted by Advance UK. This was done because the survey reflects the findings in the literature regarding post-graduate and especially doctoral students, and so that the findings could be tentatively benchmarked against the UK and Australian doctoral student experience, as well as revealing important and implicit issues faced by the Georgian doctorates' community.

The analysis is based on data collected through a survey aimed at exploring the experiences and perspectives of doctoral candidates across universities in Georgia. The survey, administered via Google Forms, was conducted with the support of the Ministry of Education. The involvement of the Ministry was crucial, as requests from the Ministry are generally taken more seriously by universities, ensuring broader dissemination of the survey.

The research team worked with the Ministry of Education to distribute the questionnaire to universities offering doctoral education programs. While the Ministry facilitated the dissemination of the survey, it was explicitly ensured that the survey communication reaching doctoral candidates did not mention the Ministry's involvement. This approach maintained the independence of the research and emphasized that participation was voluntary and that responses were anonymous. Doctoral candidates were informed that their responses were exclusively for the research team and would not be shared with universities or other institutions. The research team does not view the Ministry's involvement as a limitation, as anonymity was upheld throughout the process, ensuring participants could provide honest and unbiased feedback.

A total of 250 responses were collected during 06.10-27.11.2024, of which 208 were valid for analysis. The study offers meaningful insights into doctoral education in Georgia and serves as a foundation for future research and policy development in the field.

The survey structure contains 8 demographic and 35 questions as detailed in Appendix 1. This structure enabled both quantitative and qualitative analyses, with closed questions providing statistical data and open-ended items allowing for deeper insights. In this chapter, we present the findings of the quantitative analysis, including comparisons with international peers, and triangulate these results with qualitative insights derived from the open-ended responses.

3.2. Quantitative analysis

The descriptive outcome shows that students are generally satisfied with aspects of their doctoral experience. The following results provided a deeper analysis. The red percentages in brackets are taken from the UK 2023 PRES Report.[5] to give a comparative perspective. It should be reiterated that the survey used in Georgia was not this one but was one built and aligned with its principles. The comparative percentages are only indicative and cannot be used in any other way.

The areas that the survey focused upon were students' experiences of:

3.2.1   Overall satisfaction

85% (79%) of students said they were totally or mostly satisfied with their degree programme and felt that the institution valued their feedback. Overall satisfaction was intense across all

---

[5] Taken from the doctorate sections of the Graduate Research Experience Survey 2023: sector results report, Advance HE, accesses 4.1.2025, Postgraduate Research Experience Survey 2023: sector results report

age bands, but the younger age bands were less likely to give a full endorsement of their experience. Overall, 90.5% of private university respondents and 83.6% of State university respondents either entirely or mostly agreed that the universities satisfied their expectations.

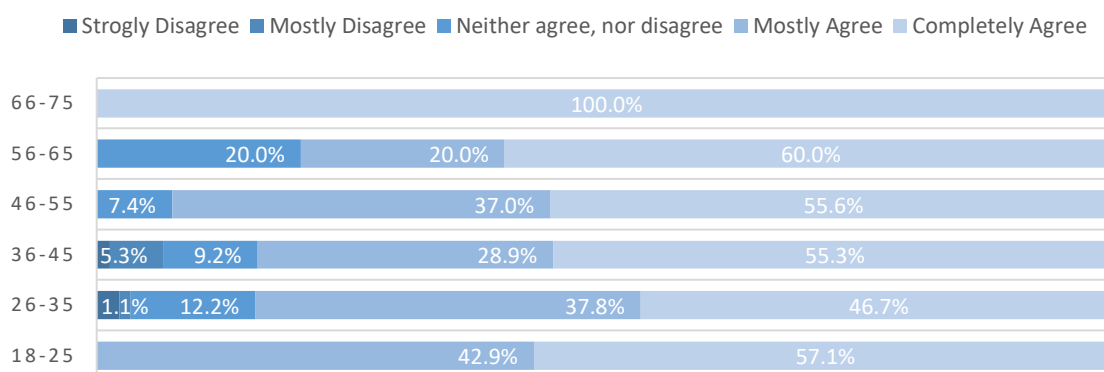### 'I AM SATISFIED WITH THE EXPERIENCE OF MY RESEARCH DEGREE PROGRAMME' BY AGE CATEGORY

■ Strogly Disagree ■ Mostly Disagree ■ Neither agree, nor disagree ■ Mostly Agree ■ Completely Agree

66-75		100.0%	
56-65	20.0%	20.0%	60.0%
46-55	7.4%	37.0%	55.6%
36-45	5.3% 9.2%	28.9%	55.3%
26-35	1.1% 12.2%	37.8%	46.7%
18-25		42.9%	57.1%

Figure 7. Satisfaction with doctoral programme

3.2.2 Supervision

The responses in this section were overwhelmingly positive, with around 90% (87%) of students agreeing that their supervision met their expectations in terms of support, skills development, and feedback. However, this was not reflected in the open question responses.

3.2.3 Resources and Support

The expectations for resources were, to a great extent (over 90%) (82%), met. Overall satisfaction with support services reached 80%. Financial support was initially low, at 65%, but increased to 75% when explicitly directed towards their university. Another indicator asked of students was their perception of how their views were heard and acted upon. Here, the difference in age of the student was significant, with younger age groups less satisfied with institutional responses by age.

3.2.4 Research community

Research culture was less positive, scoring 70% (60%), making it one of the weakest categories of student experience. Only 71% (59%) felt there was a sense of belonging to the university, although that rose to 74% (57%) when they were asked about being part of the doctoral body.

All indicators were higher than in the UK, which has a more diverse international doctoral student body. Research ethics was problematic, with only 86% aware of the universities' ethical review board and only 68% having used it.

'MY INSTITUTION VALUES AND RESPONDS TO FEEDBACK FROM DOCTORL STUDENTS' BY AGE CATEGORY

Legend: ■ Strogly Disagree ■ Mostly Disagree ■ Neither agree, nor disagree ■ Mostly Agree ■ Completely Agree

Age		
66-75	100.0%	
56-65	20.0%	80.0%
46-55	11.1% / 18.5%	70.4%
36-45	9.2% / 28.9%	56.6%
26-35	8.9% / 28.9%	56.7%
18-25	14.3% / 14.3% / 14.3%	57.1%
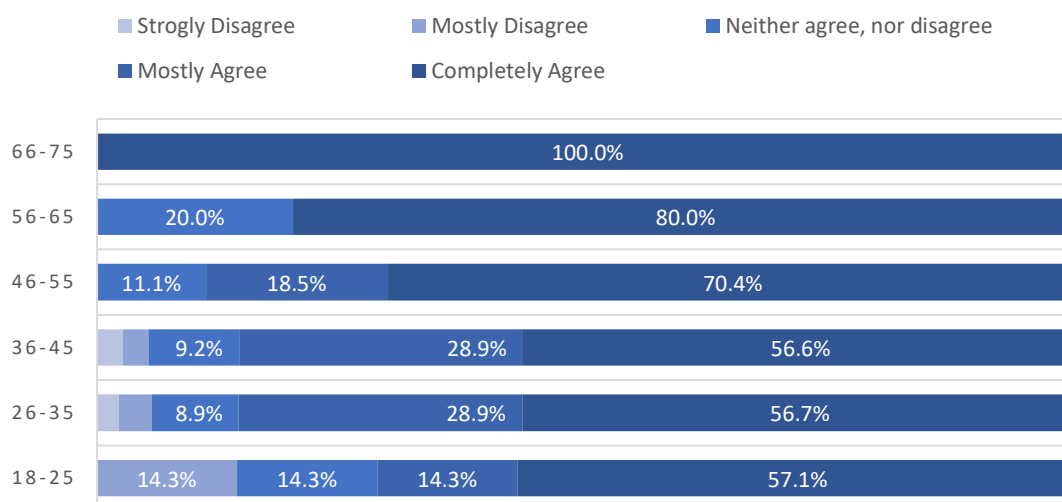
Figure 8. Student feedback is valued

3.2.5 Progression and assessment

Administrative: 84% (85%) understood the requirement for monitoring their progression in their studies, and 90% (77%) had a good understanding of the standard required of them. 85% (72%) were clear on the procedures for their final assessment. 80% thought they would complete their studies in the timeframe set by the university. In the PRES survey, overall satisfaction with progression was 77%. These figures are encouraging but are relatively low compared to other scores and may relate to supervisor communications.

3.2.6 Skills and professional development

Over 80% perceived that their confidence had developed during the doctoral experience, and 88% (90%) had seen improvements in their research skills and critical analysis. 86% (71%) had attended an academic conference, 64% (57%) had presented a paper, and 60% (37%) had submitted an academic paper for publication.

3.2.7 Well-being

Institutional support for students' mental health and career support was low at 67% (66%), as it is in the UK. Figure 9 illustrates this for males and females, with males being more positive than females

'I FEEL SUPPORTED BY THE INSTITUTION IN MAINTAINING MY MENTAL HEALTH AND WORK-LIFE BALANCE DURING MY DOCTORAL STUDIES' (% WITHIN GENDER)

■ Male ■ Female

	Male	Female
STRONGLY DISAGREE	8.6%	8.8%
MOSTLY DISAGREE	3.4%	5.4%
NEITHER AGREE, NOR DISAGREE	13.8%	20.9%
MOSTLY AGREE	19%	20.9%
COMPLETELY AGREE	55.2%	43.9%
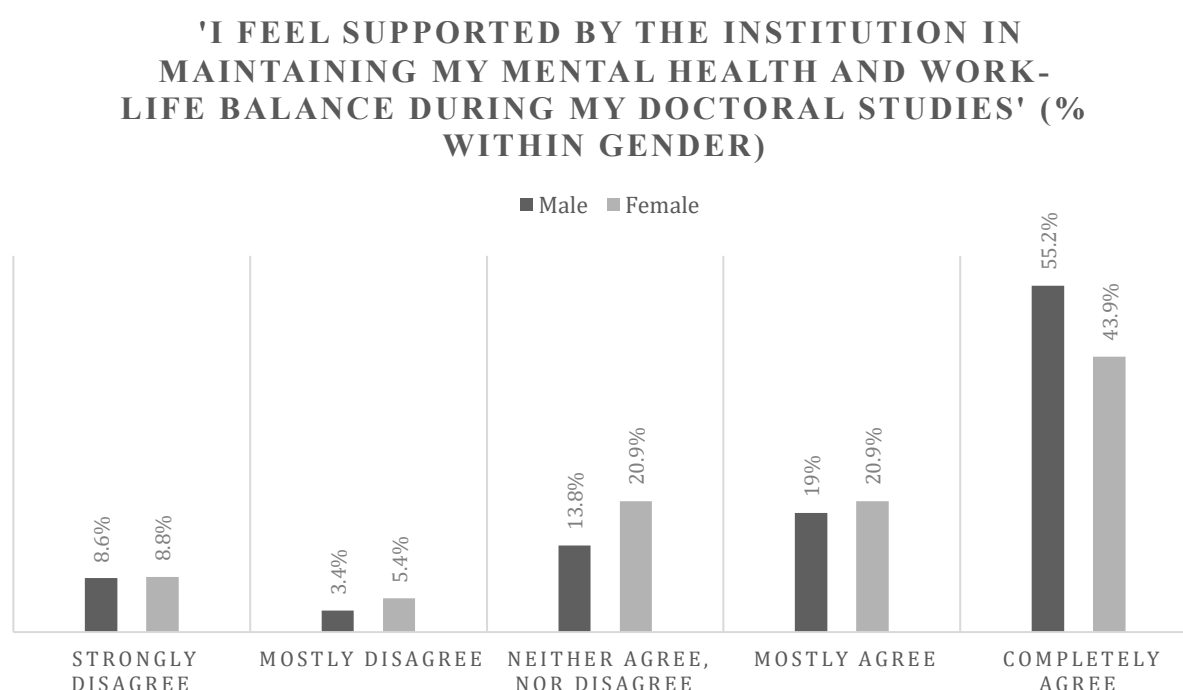
Figure 9. Well-being

3.3   Summary of Significant differences that occurred in the data

Overall, the students responded positively and in a consistent manner. There were, however, several statistically different clusters of responses. These differences were observed for gender, where there was significantly less satisfaction with the perceived support given to female students. There were, perhaps surprisingly, only two sets of responses where there was a significant difference between state and private universities. However, a greater level of satisfaction was found for non-Tbilisi universities than for those in the capital on several aspects of the student experience. Regional suppliers also seemed to do a poorer job of

regaining support for students than Tbilisi universities did. Finally, there was a significant difference in the way students in different fields perceived their engagement.

3.3.1   Gender

In all cases where there was a significant difference, it was males who were more satisfied. Significant differences were observed in several key areas, including supervisor assistance, student responsibilities for their programme, reflection on physical resource availability, involvement in the research community, aspects of financial support satisfaction, understanding of the standards and assessment for the final thesis, and overall satisfaction. These differences appeared in 8 of the 31 questions.

3.3.2   Regions

In all areas of significant difference, the regional students (defined as non-Tbilisi students) scored higher. The issues related to access to good seminars, institutional support with supervision, support with mental health issues, a higher sense of belonging, and being part of a doctoral community. Regional students also thought they had experienced appropriate induction and that their confidence had grown more than that of the Tbilisi students. These significant differences occurred in 7 of the 31 questions.

3.3.3   Field of Study

There were significant differences among the academic sectors in four questions. These were the provision of seminars, where agriculture students were the most positive and social sciences students the least positive; involvement in the broader research community, where agriculture students were the most positive and social sciences students were the least positive; the positive influence of the research community on their work, where natural science students were the most positive and medicine and healthcare students were the least positive; and feeling part of a community of doctoral students, where agriculture students scored the highest and social sciences students scored the lowest.

3.3.4. An alternative comparison

To seek a comparison and enrich the interpretation of the data from a different perspective.

	Georgia%		UK%
Top positive answers			
Supervision support	90	Supervision support	87
Understanding of the programme	90	Administration support	85
Improvement in research skills	85	Provision of resources	82
Overall satisfaction	85	Overall satisfaction	79
Administration support	84	Understanding of the programme	77
Bottom answers			
Submitted a paper for publication	60	Submitted work for publication	37
Present a paper at a conference	60	Presented at a conference	56
Attended a conference	64	Feeling part of the doctoral body	57
Support for wellbeing	67	Feeling of belonging to the university	59
Membership of a research community	70	Part of a research community	60

Table 20. Top and bottom 5 answers: ranking comparison between Georgia and the UK

The similarities of the Georgian and UK doctoral student experience are illustrated in the above table as a better indicator of comparative issues for UK and Georgian students. The same issues appear in the most positive answers. In contrast, the questions about academic outputs and feelings of being part of a university research community gained the least positive responses in both groups.

3.4   Results from inferential analysis

3.4.1 Methodology

The results of a Principal Component Analysis (PCA), which examines the factor structure of different components related to students' experiences in their doctoral programs, are presented in Appendix 2. The analysis identifies six key components: Progress Assessment, Supervision, Student Support, Resources, Research Community, and Belonging. Each component consists of multiple items, and Cronbach's Alpha values are reported to assess the internal reliability of these factors. Details of the approach and its statistical validation are provided in Appendix 3.

3.4.2 Overall satisfaction

Table 21 presents the regression analysis results, indicating that the model is statistically significant with an adjusted coefficient of determination (Adjusted R Square) of .552. This means that the model explains 55.2% of the variance in overall satisfaction.

Student support is the most significant predictor (β = .381, p < .001), indicating that this factor has the strongest impact on overall satisfaction. It is followed by a sense of belonging (β = .188, p = .003) and resources (β = .183, p = .002), which are also significant predictors. Supervision is also statistically significant (β = .168, p = .007).

Interestingly, the research community does not have a statistically significant impact on overall satisfaction (β = .008, p = .894). This may suggest that the research community's importance is outweighed by other factors in influencing student satisfaction within the research context.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0,697	0,307		2,272	0,024
Student Support	0,258	0,044	0,381	5,915	0,000
Supervision	0,217	0,080	0,168	2,706	0,007
Resources	0,179	0,056	0,183	3,184	0,002
Research Community	0,007	0,049	0,008	0,134	0,894
Belonging	0,182	0,062	0,188	2,959	0,003
R Square	0,563				
Adjusted R Square	0,552				

Table 21. Results of regression equation (dependent variable: Overall Satisfaction)

3.4.3 Progress Assessment

The results of the regression analysis in Table 22 show that the model predicting Progress Assessment is statistically significant. The adjusted coefficient of determination (Adjusted R Square) is .398, which means that the model explains 39.8% of the variance in progress assessment.

Belonging is the most significant predictor (β = .207, p = .005), indicating that this factor has the strongest influence on progress assessment. It is followed by Student Support (β = .197, p

= .009) and Resources (β = .182, p = .007), which are also significant predictors. Supervision is also statistically significant (β = .149, p = .040), although its impact is relatively small.

Research Community does not have a statistically significant impact on progress assessment (β = .089, p = .204). This finding is interesting and may indicate that in the research context, the research community plays a less significant role in progress assessment than other factors.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1,140	0,349		3,268	0,001
Student Support	0,131	0,050	0,197	2,641	0,009
Supervision	0,188	0,091	0,149	2,068	0,040
Resources	0,174	0,064	0,182	2,728	0,007
Research Community	0,071	0,056	0,089	1,273	0,204
Belonging	0,197	0,070	0,207	2,815	0,005
R Square	0,413				
Adjusted R Square	0,398				

Table 22. Results of regression equation (Dependent variable: Progress Assessment)

3.4.4   Research skills

The regression analysis (Table 23) examines the factors influencing research skills as the dependent variable. The model demonstrates a strong explanatory power, accounting for 47.1% of the variance in research skills (R^2 = 0.471) with an adjusted R^2 of 0.458, indicating a well-fitted model. The constant term is statistically significant (B = 0.826, p = 0.014), suggesting that even in the absence of independent variables, there is a baseline level of research skills.

Among the independent variables, supervision has the strongest effect (B = 0.271, β = 0.213, p = 0.002), highlighting its crucial role in enhancing research skills. Student support also has a significant positive impact (B = 0.138, β = 0.207, p = 0.004), indicating that institutional and academic assistance contribute meaningfully to research skill development. The research community variable is also statistically significant (B = 0.152, β = 0.188, p = 0.005), suggesting that engagement in a research-oriented environment strengthens students' abilities. Similarly, belonging is a significant predictor (B = 0.199, β = 0.208, p = 0.003), implying that a sense of

inclusion and connection within an academic setting positively influences research competency.

On the other hand, the resources variable does not exhibit statistical significance (B = 0.051, β = 0.053, p = 0.404), indicating that the mere availability of research materials and infrastructure does not directly enhance research skills. This suggests that how resources are utilized may be more important than their presence alone. The findings emphasize that academic and social support systems play a greater role in shaping research skills compared to material resources.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0,826	0,333		2,483	0,014
Student Support	0,138	0,047	0,207	2,924	0,004
Supervision	0,271	0,087	0,213	3,128	0,002
Resources	0,051	0,061	0,053	0,837	0,404
Research Community	0,152	0,053	0,188	2,850	0,005
Belonging	0,199	0,067	0,208	2,980	0,003
R Square	0,471				
Adjusted R Square	0,458				

Table 23. Results of regression equation (Dependent variable: Research Skills)

Overall, student support has a significant impact on overall satisfaction, student progression, and research. Belonging to a research community also makes a significant contribution. These issues should be considered in improving the student experience.

3.4.5 Prediction of Retention

The results of the binary logistic regression analysis (Tables 24-26) indicate that the model significantly predicts whether students have considered leaving the program. The overall model was statistically significant, $\chi^2 (5) = 31.195$, $p < .001$, suggesting that the inclusion of predictors improves the explanation of variance in students' decisions. The model accounts for approximately 24.3% of the variance in the dependent variable, as indicated by Nagelkerke's R^2, while the Hosmer and Lemeshow test results, $\chi^2(8) = 12.474$, $p = .131$, confirm a good model fit.

The classification results demonstrate that the model correctly predicts 85% of cases, with a high accuracy rate of 97.1% for students who did not consider leaving the program. However, the model shows lower predictive accuracy (18.8%) for those who have considered leaving, indicating that additional unmeasured factors may contribute to students' dropout intentions.

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Supervision	0,768	0,404	3,621	1	0,057	2,155	0,977	4,754
Student Support	0,204	0,223	0,839	1	0,360	1,227	0,792	1,900
Resources	0,466	0,272	2,940	1	0,086	1,594	0,936	2,715
Research Community	0,197	0,272	0,528	1	0,467	1,218	0,715	2,075
Belonging	0,178	0,340	0,275	1	0,600	1,195	0,614	2,327
Constant	-5,939	1,799	10,893	1	0,001	0,003		

Table 24. Results of binary logistic regression: (dependent variable: Have you considered leaving the program?) Variables in the Equation

Observed			Predicted		
			Have you considered leaving the programme?		Percentage Correct
			Yes	No	
Step 1	Have you considered leaving the programme?	Yes	6	26	18,8
		No	5	169	97,1
	Overall Percentage				85,0
a. The cut value is .500					

Table 25. Classification Table

Step	Chi-square	df	Sig.
1	12,474	8	0,131

Table 26. Hosmer and Lemeshow Test

Among the independent variables, supervision had the strongest effect on students' retention, with a coefficient of B = 0.768 and an odds ratio (Exp(B)) of 2.155, suggesting that better supervision more than doubles the likelihood of students remaining in the program. This effect was marginally significant at p = .057. Resources also showed a positive relationship with retention, B = 0.466, Exp(B) = 1.594, p = .086, indicating that improved access to resources increases the likelihood of students staying in the program. The remaining predictors, including student support (p = .360), research community (p = .467), and belonging (p = .600), did not significantly influence students' decisions.

3.5 Qualitative analysis

The questionnaire contained an open question following each section. The themes that emerged from this section helped to explore the responses given in the closed questions. These responses are not quantifiable but express the views of students based on the experiences explored in the closed question and give insights that are considered valuable. Only the headline issues are provided and clustered in the themes of the questionnaire.

3.5.1 Improvements in supervision provision

- Satisfaction with the existing model, which matched the overall ranking in the closed questions.
- Supervision practices were highlighted as needing attention.
- Structuring of a coherent supervisory process that is fair, timely, and motivational was advocated.
- Issues were raised about the quality of supervision and communication with supervisors and administration.
- The international quality of academics leading the supervision was questioned, as was their academic record and standing in their field of study.
- Closer and more joint work with supervisors and engagement in their international project was requested.

- Time given to students by supervisors needed to be documented clearly and realistically for both supervisor and student. There was a feeling that supervision was an 'add-on' to the academic's teaching and research roles.

3.5.2 Resources

The comments mainly confirmed that the students were satisfied with what was provided by their institution.

- Requests were made for the best possible availability of data search sources, both on and off campus.
- Assistance in the practical and innovative utilisation of these resources to assist the research process was requested.
- Better library access to contemporary publications and to government resources for research purposes was requested.

3.5.3 Research culture

Students desired increased engagement with academic supervisors and scholars beyond the supervisory team, both within the university and internationally.

- The provision of more seminars, workshops, and conferences, both hosted and attended by national and international leading academics.
- The provision of a facility to enable students to recognise the academics within Georgia as resources available to them at the institutional, national, and international levels.
- Greater involvement in research projects of the university at the domestic and international levels.
- Recognition that, as young academics, their membership of an academic community is fragile, and this engagement needs to be developed for them to become active members.

3.5.4 Financial support

Students were mainly dissatisfied in this area.

- Government funding for doctoral students was requested, rather than for competitive research grants.
- Financial difficulties were seen as a cause of concern for the quality of work, given the restrictions on students' time and economic sustainability.
- Several different models could be developed.

- Formal adoption of part-time status for students with separate regulations.

3.5.6 Progression

Many did not see any problems.

- The structure of supervision should be more transparent, more scheduled, and more monitored.
- Timely assessment to give good quality feedback.
- More and better communication is requested.

3.5.7 Research ethics

Research ethics showed no consistency in practice, leaving students unclear about when and what actions to take. This situation poses a significant hazard, as it jeopardizes students and institutions by exposing them to participant harm claims, risks unauthorized research methods that intrude upon participants, and thus compromises the integrity of doctoral programs. Furthermore, it represents a moral oversight on the part of institutions and the quality agency.

3.5.8 Leaving the programme

For many, this was not an issue.

- A lack of finance was the primary cause of concern.
- Issues with balancing work, family, and research.
- Too busy in other spheres of life.
- Feeling alone.

3.5.9 Overall satisfaction

The overall levels reported were very high. Although it was not so, a combination of all of the above factors was repeated.

Commentary

The findings of the Student Experience Survey offer valuable insights into both the strengths and the persistent challenges of doctoral education in Georgia. Quantitative results show encouraging levels of overall satisfaction among doctoral candidates, particularly regarding supervision, resources, and program understanding. These areas consistently received higher scores than comparable benchmarks from the UK, indicating meaningful progress in Georgian doctoral education. The intense satisfaction with supervision (90%) and administrative support underscores effective institutional efforts in these domains.

However, deeper analysis reveals several areas needing improvement. Notably, the sense of research community and belonging, while rated higher than in the UK, remains among the weaker dimensions of the Georgian doctoral experience. Qualitative responses suggest that engagement beyond the supervisory team, integration into broader research activities, and access to seminars and academic networks require greater institutional support. The lack of consistent research ethics practices also emerged as a significant risk, highlighting the urgent need for clear guidelines and training at both institutional and national levels.

Financial support stands out as a persistent challenge, with many students expressing dissatisfaction and calling for more sustainable funding mechanisms. The qualitative data indicate that financial pressures are a primary reason some students consider leaving their programs. Addressing this issue is critical for improving retention and ensuring equitable access to doctoral education.

Gender and regional disparities are notable. Female students report lower satisfaction, particularly in areas related to support and supervision, pointing to the need for gender-sensitive approaches and targeted support systems. Interestingly, regional (non-Tbilisi) students often report higher satisfaction across several measures.

The regression analyses reinforce the importance of student support, a sense of belonging, and supervision as the most significant predictors of both overall satisfaction and academic progression. In contrast, material resources alone do not guarantee positive outcomes; rather, it is the effective use and accessibility of those resources that matter.

Notably, the survey reveals that while the legal and institutional frameworks support a generally positive doctoral experience, operational inconsistencies persist - especially in supervision practices, research ethics, and financial support. The findings underscore the

necessity of continued reforms that focus not just on policy, but also on practical implementation at the institutional level.

While Georgian doctoral education demonstrates substantial strengths, particularly in supervision and student support, it also faces clear challenges. Systematic efforts to enhance research community engagement, establish transparent research ethics procedures, and expand financial support will be essential for sustaining progress and aligning with international standards.

Chapter IV - Views from Policy Makers, Senior Academics, and the Supervisors

The next stage of the project involved a preliminary examination of two critical stakeholder groups: representatives from policymakers and those directly involved in implementing doctoral programs. The first group comprised representatives from the MoESY and NCEQE. The second group consisted of senior management representatives and supervisors from selected state and private institutions. The selection of the universities was based on the data provided by EMIS. It covered the most prominent universities located in Tbilisi and in the regions, six altogether – 4 state and 2 private, 5 from Tbilisi and 1 from the regions. This part of the study took place from January 2025 to March 2025. It included 8 in-depth interviews with policymakers and senior management of 6 universities, and 6 focus groups comprising supervisors from the selected universities. The research team adopted a semi-structured approach (the stimulus questions are provided in Appendix 4). These questions were framed based on comprehensive data provided by EMIS and other national sources, a desk study conducted previously, and the student survey to explore the perspectives from the students, policy makers, and academics through rich, narrative data, while using digital tools to allow deeper cross-case comparison and emerging pattern analysis.

Data were collected through semi-structured, in-depth interviews, which allowed for both consistency in key themes and flexibility to explore individual experiences. Interviews lasted between 45 and 60 minutes, and all were recorded (with informed consent) and transcribed. 7 interviews were conducted in English, and one in Georgian. The Georgian interview was transcribed and translated into English. All 6 focus groups were conducted in English. Key thematic areas questionnaire included: program quality assurance, doctoral supervision, institutional autonomy, funding and infrastructure, and strategic alignment with national educational goals.

The interview data were processed and analyzed through the software Dedoose. A cloud-based software platform designed for qualitative and mixed-methods research. Developed in the early 2000s by the Fielding Graduate University and the University of California, Los Angeles, Dedoose has emerged as a leading tool for researchers seeking to integrate narrative richness with analytical structure, particularly through its capacity to support "quantitizing" - the transformation of qualitative data into numeric summaries (Sandelowski et al., 2009).

The decision to use Dedoose was both methodological and strategic. Unlike traditional qualitative software packages that focus solely on coding and retrieval, Dedoose offers a unique capacity to blend qualitative depth with quantitative precision. As Sandelowski and colleagues (2009) suggest, such an approach allows researchers to balance narrative complexity with measurable patterns - ideal for comparing stakeholder groups.

To maximize the analytic potential, the data were analysed using three Dedoose projects:

1. Policy Makers (2);
2. University Senior Management (8);
3. Focus groups (number of participants in each focus group was from 4 to 6, 33 altogether).

This structure allowed for an independent and comparative analysis of themes, code, and sub-codes across stakeholder groups. Within each project, mechanical (manual) coding was applied using both deductive codes (based on the research framework and interview guide) and inductive codes (emerging from participant responses). Codes were hierarchically organized into parent and child codes (codes and subcodes), creating a structured taxonomy that reflected layered thematic content *(e.g., Doctoral Supervision > Supervisor Motivation)*. After processing in Dedoose*,* the process of marking quotations revealed that some codes were referenced very frequently by stakeholders, while others appeared only once or twice. To ensure proportionality, codes with a very low frequency were excluded. For example, with Policy Makers, only codes and sub-codes mentioned at least three times were retained, as this group had fewer participants compared to University Representatives. For University Representatives, the threshold was set higher - only codes and sub-codes mentioned at least five times were included.

Participants were informed about the study's purpose, voluntary participation, and confidentiality protocols. All data were stored securely and used only for academic purposes.

4.1 Policy makers

This chapter presents findings from a series of semi-structured in-depth interviews with key stakeholders involved in the governance, implementation, and development of doctoral education in Georgia. Conducted as part of a broader effort to understand the current state of doctoral education, these interviews provide first-hand insights into the ambitions, tensions, and perceived gaps within the system. The analysis identified five interrelated thematic areas: the introduction of new doctoral education standards, evolving national funding strategies, joint international doctoral programs, the absence of a unified research strategy, and the role of doctoral education within the broader Education and Science Strategy 2030.

While interviewees acknowledged several positive developments - most notably the 2024 doctoral framework - they also expressed concerns over inconsistent implementation, weak alignment between institutional offerings and national priorities, and the absence of cohesive research and doctoral funding policies. Taken together, the interviews illustrate a system in transition: one that aspires toward quality, internationalization, and relevance, but which still faces significant structural and strategic challenges. The following sections analyse these perspectives thematically, offering a qualitative lens through which to interpret the current state and future direction of doctoral education in Georgia.

4.1.1 Doctoral Education New Standards

The 2024 introduction of a new framework for doctoral education is regarded as a milestone. Although described as a "minimum standard," it represents a significant improvement over previous approaches and provides a strong foundation for future developments. While it is too early to assess its full impact, interviewees anticipate a decline in the number of accredited PhD programs and available positions. The new standards for doctoral education are widely seen as transformative, aiming to improve quality and align with national priorities. Interviewees emphasized that institutions are now required to submit formal requests aligned with the new standards, including clear structures and expectations. As one noted, "We require the request from the institution by the new standard… so the students know what they can expect." This reflects a shift toward greater transparency and consistency in program design and delivery.

The purpose of the reform, according to the interviews, was not merely to update guidelines but to prompt significant structural changes. One participant described the objective as encouraging institutions to terminate programs that no longer meet the revised requirements: "The aim of this document… was to cause the termination of the existing programs." Institutions are now expected to make strategic decisions about which programs to sustain and which to discontinue, based on their capacity to meet the new standards and align with defined thematic priorities.

4.1.2 National Strategy on Funding

Interviewees highlighted that a new, more strategic approach to funding is being developed, reflecting a national commitment to prioritize specific academic fields and improve higher education efficiency. One participant noted that while such prioritization mechanisms already exist at the bachelor's and master's levels - "We have such a system at the perpetual level" - there is still a lack of a corresponding funding model for doctoral education.

A major upcoming change centers on the introduction of a new funding model, expected to be fully operational by 2027. The shift is not just about increasing financial resources but also about modernizing the infrastructure that supports funding decisions. As one interviewee stated, "The whole country is waiting for [a] new funding model… not only the amount of money, but also the problem of not having a data management system." The absence of such a system has hindered data-driven decision-making and financial transparency within higher education institutions.

A crucial first step is the establishment of an integrated data management system to collect and analyze key institutional data. This infrastructure will inform more effective and equitable distribution of state funding. The aim is to direct more resources to nationally prioritized fields - such as agriculture, engineering, and nursing - while providing more limited funding to other disciplines: "We are going to fund more the priority fields… PhD positions for other fields also… will not be funded as much."

4.1.3 Joint and Dual International Doctoral Programs

The development of joint and dual PhD programs has emerged as a strategic priority within the national higher education agenda. Interviewees emphasized the importance of fostering

international collaboration and institutional partnerships at the doctoral level. One participant highlighted a notable example: "This was the first PhD program… in the wish list of the Ministry of Education," referring to the joint initiative of one Georgian and one international university. This project reflects the ministry's active role in identifying and supporting programmatic areas of national relevance.

Joint and dual programs are viewed not only as tools for internationalization but also as mechanisms to raise academic standards and expand research opportunities. The state has provided targeted funding to support such initiatives, though modestly: "The ministry is funding… several dual and joint education programs which state universities are offering together with foreign universities." However, despite policy support, uptake at the doctoral level remains limited.

Additionally, recent changes have introduced distance and hybrid education formats into the system: "We introduced distance and hybrid education… which we did not have until now." This new modality is seen as another potential avenue for expanding joint programs, enabling universities to develop new models of cooperation.

4.1.4 National research strategy

Participants highlighted the absence of a coherent national research strategy as a critical gap affecting the development of quality PhD programs. As one interviewee stated bluntly, "We do not have any kind of national strategy or national priorities in research," adding that this applies to both the agency and the Ministry. Without such direction, universities have significant autonomy in program creation, allowing them to "submit PhD programs in every field" listed in the national qualification framework. However, this breadth is not always aligned with institutional capacity or strategic focus.

Interviewees emphasized the need for institutions to concentrate on resources more effectively. They pointed out that universities often list "30 to 40 research priorities," which dilutes focus and strains resources. In response to the new standards, universities are now expected to "define more precisely the strategies of research activity" and narrow their focus to "maybe a maximum of seven or eight priorities." This strategic alignment should reflect institutional goals and enhance the overall quality of PhD offerings.

An important contextual factor was the recent legislative change that eliminated the distinction between "teaching universities" and "universities" based on program levels. Previously, some institutions launched PhD programs primarily to gain university status. At the same time, HEI would not have subsidized Bachelor Program students if it did not have all three higher education level programs (BA, MA, PhD) within the university. This led to an inflation of the number and quality of PhD programs, particularly in regions and fields with low demand for BA programs, where universities sought to attract students by offering free opportunities. One respondent noted, "It was their motivation to have eight or nine or ten PhD programs… now they do not have it," suggesting that the reform may curb artificially motivated program expansion and redirect focus on quality and relevance.

4.1.5 National Doctoral Strategy

The discussion reveals that while there is no specific doctoral education strategy at the ministry level, doctoral education is integrated within the broader Education and Science Strategy 2030. This overarching national strategy outlines visions, missions, and activities aimed at improving education quality, particularly at the PhD level: "Doctoral education is actually a huge part of this strategy." However, despite these strategic inclusions, satisfaction with current progress and priority-setting remains limited. One participant noted, "We are not satisfied with… priorities is also one of our weak points."

A significant challenge is the absence of clear, nationally agreed-upon priorities for doctoral studies. Although some priorities exist at the bachelor's level, they tend to reflect individual university preferences rather than a unified national agenda. The International Education Center's experience in funding Georgian students abroad illustrates this issue: attempts to define priority fields resulted in most funded students studying business administration and law." This pattern aligns with global trends but highlights the lack of strategic diversity, leading to the hope that "one day it will not be this way."

Funding plans aim to concentrate more on priority fields, yet non-priority disciplines will still receive some support. Additionally, the ministry recognizes the importance of developing professional PhD tracks to diversify doctoral education pathways, as currently, "Most of them… want to do a professional PhD, but unfortunately, we do not have these two tracks."

4.2 In-depth interviews with University Senior Management

The analysis identified eight main themes and, within them, six subthemes.

4.2.1 National Policy

University representatives highlighted the influence of national and international strategic priorities on the direction and support of PhD education in Georgia. A recurring theme was the alignment with European Union expectations and broader geopolitical ambitions: "Priorities are linked with the European Union priorities."

The consequences of this alignment affect which fields are recognized and funded, creating clear distinctions between priority and non-priority areas: "Of course, the history of Asia, Near Eastern Studies, it is not a priority… However, Georgia studies, cultural heritage is also included, as well as STEM." Several interviewees mentioned that STEM fields and green/blue economy seniorities are increasingly prioritized at the national level strategy: "Green economy and blue economy are now very important… biodiversity, ecology. Moreover, STEM… technologies… the fields the world is moving towards. If we follow this dynamic as a country, it would be very important."

However, critical perspectives emerged, especially regarding ambiguity and changing definitions of national priorities: "These national priorities themselves are a very ambiguous concept… different governments define these priorities differently." There were also calls for balanced recognition, including the humanities and social sciences: "While social sciences do not produce tangible projects like engineering does, they support the maturing of our society… especially when we talk about an open and democratic society." Additionally, online education - though seen as beneficial, especially for PhD students - faces scepticism from national authorities: "The ministry may not trust the higher education institutions… because they do not know how to check or monitor online processes."

4.2.2 Internationalization

Across multiple institutions, internationalization is identified as a cornerstone of doctoral education policy and practice in Georgia. Stakeholders described efforts to align with international standards, develop partnerships, and create global opportunities for both students and faculty. Several universities demonstrated clear strategic intent to integrate

internationalization at the structural level: "[… University] is eager to follow international standards… I deeply believe that foreign universities can give us the best practice, the best experience, and we can implement that."

Universities are also creating institutional units, such as international doctoral schools, to support cross-border academic activity: "This is a unit that supports our academic units… supporting international collaboration ideas… providing training in transferable skills like grant writing, research skills, and science communication." Structured doctoral programs, often developed with international donors or partners, were seen as critical enablers of internationalization and quality assurance: "Beyond institutional initiatives, recognition by international bodies (e.g., ABET accreditation) was viewed as vital in validating the global competitiveness of Georgian higher education."

The issue of visibility was raised, with concerns that Georgia's educational quality and infrastructure remain underrecognized internationally. Political tensions and macro-level dynamics were also seen as potential threats to sustainable internationalization. Participants emphasized that while government support is important, universities themselves must lead implementation: "The government can provide a permissive environment… but universities themselves should take specific steps." Ultimately, speakers agreed that research today is inherently international, and for Georgia to thrive academically, internationalization must be embedded in every aspect of doctoral education: "Research cannot be isolated… It can only be done in Georgian, maybe if it is Georgian studies… but anything else is very international."

4.2.3 Quality Assurance

It was emphasized that doctoral quality assurance is mission-driven and deeply institutionalized. The strategic plan positions PhD graduates as skilled contributors "for the country," while the Quality Department continuously audits faculty research performance, intervening when affiliated staff fail to publish to international standards. Since 2018, all doctoral programs have been realigned with new national accreditation criteria. A parallel focus on integrity is evident: staff development events have placed "particular emphasis on plagiarism," and through participation in the Erasmus+ "Integrity" project, the university now purchases Turnitin licenses annually, making similarity checks compulsory for every thesis or assignment. Quality enhancement is further supported by structured professional development. The Quality Assurance Service organizes training "at least four times a year," complemented

by sessions from the Research Support and Development Service and external experts on accreditation and program design. Incentive schemes motivate doctoral candidates, although details were not specified in the interviews.

Finally, supervisory capacity is formally regulated: "The maximum number of active students is five PhD students per professor, and it will be three soon." This ceiling safeguards mentoring quality and ensures that each candidate receives adequate academic guidance, reinforcing the overall integrity of doctoral education.

4.2.4 Supervision

The representatives of the universities highlighted multiple supervision challenges faced within doctoral education. One prominent issue is supervisor overload, where some faculty were responsible for too many PhD candidates: "We had not a very good practice when one supervisor had very many students… physically, there was not enough time to pay attention to a particular student." This led to diminished attention and support, prompting institutions to cap the number of supervisees at three per professor as stated in the new standard for PhD programs. However, such regulations were seen as restrictive: "If I have four [PhD students], why is this a problem?" The speaker questioned blanket policies, emphasizing the need for institutional flexibility.

Another challenge stems from disciplinary differences. In technical fields, collaborative research is common, allowing students to co-author publications: "In physics or chemistry… there are collective articles… 10 authors." In the humanities, however, supervisors and students often work in isolation, increasing pressure on both parties. It was stressed that publishing in reputable outlets is integral to doctoral progression: "If a student writes a paper in which he or she is second or third author, then one paper is not enough; one paper is sufficient only if he or she is the first:" All accepted articles must appear in "high-ranking journals included in databases, EBSCO, etc." Without at least one such publication - or a formal acceptance letter - "the student is not eligible to defend."

Institutions actively underwrite these publication goals. Revised regulations at institutions tie funding to academic performance: "They should have a GPA higher than 3.5… and accordingly, we are financing them." PhD candidates may apply for university funds to cover "international conference fees" or "to publish articles in international journals." One University

offers a special grant of 1,000 GEL (≈ €300) for publication expenses. Supervisors also leverage personal networks: "Through my friends… I can recommend my PhD student and help him make such a publication on time." However, this practice can create inequalities for students whose supervisors lack similar contacts.

Although monitoring tools exist, such as "There are special surveys… is the student satisfied?", their effectiveness is uncertain. Additionally, students must initiate complaints: "They are approaching the dean's office… every particular case is discussed." Finally, some supervisors lack engagement, raising concerns about the quality of feedback: "Did he read the thesis…" These quotes reflect the complex, layered challenges of PhD supervision that require thoughtful, context-sensitive solutions.

The rollout of a new supervision policy aims to safeguard doctoral quality by capping workloads and clarifying academic ranks' duties. Under the revised framework, supervisors are remunerated - "We pay for supervision" - but may no longer accept unlimited advisees. Earlier practices in which "one supervisor had very many students" impaired mentorship; consequently, each associate professor or professor may now guide no more than three PhD candidates while still overseeing a limited number of master's projects.

Eligibility to supervise is rank-specific: "Associate professors and professors are allowed… assistant professors are not," ensuring that only experienced faculty hold doctoral responsibility. "Workload norms reflect this hierarchy: professors teach eight hours per week, devoting the balance to research and supervision, while associate professors teach twenty hours before undertaking scholarly duties".

Universities employ a flexible, merit-based model for selecting PhD supervisors. The process is iterative rather than "one-time," with the supervisor's scholarly track record - especially publications in Scopus or Web of Science - serving as the primary eligibility criterion. Prior to enrolment, applicants consult an online faculty list to identify potential mentors; many already "know" their preferred adviser through prior coursework or professional networks.

In some programs, an official exploration window follows matriculation: students meet several academics over three to four months before a formal match is confirmed. Where the match is immediate, the university still surveys candidates every six months to gauge satisfaction, track consultation hours, and flag deficiencies. Disciplinary fit governs feasibility. "If internal

expertise is lacking or the project spans multiple fields - such as AI in architecture - the institution assembles co-supervision teams, pairing specialists from different departments". External collaboration is encouraged: professors from partner universities (e.g., San Diego State University) may join as co-supervisors for joint research. To maintain quality, supervisory loads are regulated. Combining pre-admission choice, post-admission dialogue, cross-disciplinary teams, external experts, feedback loops, and load caps aims to secure optimal matches and sustained, high-quality mentorship throughout the doctoral journey.

4.2.5 Professional Development of Supervisors

University representatives confirmed that structured professional development (PD) for supervisors, academic, and scientific staff is already embedded, yet they called for stronger, nationwide obligations. "We had the trainings for supervisors… program coordinators are actively involved in this process," illustrating an existing internal culture of supervisory skill-building. Materials include "tutorials [and] guidelines on how to write… a dissertation, how to work with students," ensuring day-to-day mentoring standards.

PD events are frequent and thematically varied. Since 2018, sessions have placed "particular emphasis on plagiarism," aligning supervisory practice with heightened academic integrity expectations. Institutional quality units handle formal scheduling: "Training for doctoral program leaders and academic staff is held at least four times a year, organized by the Quality Assurance Service." Parallel support is delivered by the Research Support and Development Service, which "plays a key role in this process," and by a Professional Development Center that "regularly provides training… in modern education and research technology."

Content extends beyond supervision; workshops teach faculty how to publish and navigate databases such as Scopus and Web of Science, while orientation events clarify rights and responsibilities for new PhD students and their advisers. Dedicated modules on "good practices of supervision" further reinforce mentoring competence.

Despite this infrastructure, interviewees argue that Professional Development should become compulsory across Georgia: "Trainings… should be mandatory in Georgia," noting that regulatory differences among universities can leave supervisory quality uneven. A unified, nationally mandated framework, they contend, would ensure that every doctoral candidate receives consistent, high-quality guidance.

4.2.6 Trajectory and Support

4.2.6.1. Administration

University representatives described a tightly regulated PhD admission code anchored in language competence, proposal quality, and selective intake. At one institution, a representative stressed that "Doctorate programs are fully delivered in English," though nationally, only a limited number of PhD tracks use English as the primary medium. Where such tracks exist, applicants must prove proficiency through external certificates, English-taught degrees, or by scoring "a minimum of 71 points" on the university's own exam; program staff themselves hold "C2 or C1 level competence." Every candidate "must submit a research proposal," roughly ten pages covering research questions, hypotheses, literature review, and a three-year plan. Proposals are judged for feasibility and disciplinary fit. If reviewers conclude "it is impossible to cover the basics of computer science in these three years and then… achieve some innovation," the application is declined.

Selection unfolds in two tiers. First, "the research proposal is sent to a special commission" for written appraisal by subject experts. Short-listed candidates then face an oral defence before "a panel… all our main professors who are working in that particular field," allowing evaluators to test the candidate's methodological rigor.

Supervisor engagement follows two models. Some universities require a pre-application endorsement - "the student applies with a research proposal that the professor signs" - while others match advisers "three to four months after they become a student," once research interests are refined. Intake remains deliberately small: programs typically admit "two students per program per admission cycle," ensuring focused supervision and high research standards.

University representatives described various internal mechanisms aimed at supporting PhD students financially and academically. A key element is the provision of free tuition: "It is worth mentioning that Ilia State University provides PhD education for free. There is no tuition fee for any PhD candidate for the standard period of studies… this is already a big step towards supporting PhD education." In addition, some faculties offer partial fee reductions: "In some cases, for example, at my faculty, the admission fee is reduced twice or more… but this is internal to the university."

Significant emphasis is placed on supporting research productivity. One university representative explained that regulations now include articles explicitly stating financial support for publications: "If they ask, I will need this money for another purpose, for example, to publish articles in international journals… we have written that article into new doctoral regulations." This support aligns with institutional goals: "The University needs publications from students and academic personnel… A PhD is mostly devoted fully to research."

4.2.6.2 Individual Planning for Students

University representatives highlighted the crucial role of individual planning in the PhD supervision process, particularly when navigating diverse student needs and workload constraints. One university representative emphasized flexibility: "We are trying to prepare an individual plan for how to work together, maybe weekly, maybe once a month… it depends on both sides." This quote reflects a recognition that the supervisory relationship must be adaptable and responsive to both the student's and the supervisor's schedules and commitments. Another interviewee elaborated on the practicality and effectiveness of this model: "Actually, the individual plan is very effective. It depends on the student [and] the supervisor as well." This illustrates a strong endorsement of the individualized approach as a mutually beneficial arrangement.

Importantly, university representatives acknowledged the challenges in formalizing such flexible processes. One noted: "We do not have this kind of specification because it is really hard to distinguish and identify how many hours a professor needs for research or how many hours a particular student needs for research." This suggests that while the value of an individual plan is recognized, structural support and clarity are lacking. Additionally, the monitoring of supervision quality is indirectly tied to the individual plan. As one representative shared: "Of course, in my… faculty… quality assurance or academic units are doing these surveys… if [students] are not satisfied with your supervision… they will write or say about it." Thus, the individual plan also becomes a basis for accountability and feedback.

4.2.6.3 Dissertation Preparation

Defending a dissertation in Georgia's PhD education system poses several interrelated challenges, ranging from institutional shortcomings to structural and economic barriers. A key issue is the lack of structured university-level support mechanisms when students face

difficulties. As one respondent explained: "We did not even indicate in the doctoral regulation that, in case a student has problems, the university should be involved." This highlights a policy gap where student difficulties may go unnoticed unless individually handled by program coordinators.

Another significant concern is the balance between a dissertation's scientific novelty and the preparedness of both supervisors and students. "The dissertation's worth is largely assessed through its scientific novelty," yet supervisors themselves may lack sufficient publication experience. "Some of our supervisors do not have such articles… but now our PhD students have more publications than academic staff." The challenge of publishing in indexed journals also creates pressure: "There are journals without any fees… but it takes approximately one year… and of course, there are paid journals too." This timeline complicates students' ability to meet dissertation deadlines, especially if they are also balancing employment due to financial hardship. One interviewee observed: "People need to live on something… they have families, and they need a job."

Defending a dissertation thus becomes not just an academic milestone but a test of resilience amid systemic gaps. Students must often navigate unclear institutional policies, limited financial aid, and uneven supervisor engagement - all of which directly affect their capacity to prepare and successfully defend high-quality dissertations.

4.2.7 General Support Services

Across the interviews, representatives from several Georgian universities outlined a diverse but converging suite of support services and trainings for doctoral students.

4.2.7.1 Early induction and writing support

All institutions run structured orientation events: "We have orientation meetings… and especially for doctorate students, program coordinators are involved." Two universities have consolidated writing assistance under an Academic Writing Center, which now handles thesis preparation tasks once managed by a separate postgraduate institute.

4.2.7.2 Methodological and transferable-skills training

Each university offers short courses on proposal design and research methods. One quality-assurance officer noted workshops that cover "qualitative, quantitative, and mixed-method approaches," while a research-support unit at another university delivers "over 15 different types of training… grant writing, science communication."

4.2.7.3 Peer and disciplinary networks.

One of the universities described launching a Club of Young Researchers that meets monthly to discuss projects, alongside thematic groups - "Google Developers Club, Biomedical Engineering Club… with hackathons and exhibitions." In another social sciences school hosts interdisciplinary PhD workshops where "students from sociology, political science, psychology present and get feedback from peers."

4.2.7.4 Well-being and counselling

Every institution emphasized mental health provision. One administrator highlighted a service "available at any time" through a Psychological Well-being Center active for more than five years, including online sessions for exchange students. Another added: "The student's personality… is the first priority of the university."

4.2.7.5 Research dissemination support

At least two universities underwrite article-processing charges: "If students publish in open-access journals that require fees, the university supports PhD students financially."

4.2.8 External Influences

University representatives emphasized the critical role that external funding and international partnerships play in the development of PhD education in Georgia. One university expert highlighted: "Approximately half of [PhD students] are involved in projects directly. They have PhD grants… There are competitions, yes, calls." These competitive grants provide essential resources for student research and engagement beyond institutional capacities.

However, concerns were raised regarding the unequal distribution of funding among academic disciplines. One representative pointed out: "For natural sciences and engineering, significantly

larger amounts of funding are allocated compared to the humanities." This disparity places specific fields at a disadvantage, limiting their ability to secure funding even when applicants meet all evaluation criteria. An example of this inequality was noted: "They received the 15 points - the highest possible - and still were not funded… the explanation was that computer science is not a priority." This reflects a mismatch between evaluation success and funding decisions, potentially discouraging emerging fields.

International collaborations were cited as transformative opportunities. One university proudly shared that "our students… are conducting part of their research in Japan under a unique agreement… their work will be integrated into large-scale projects at CERN and in the USA." Such arrangements enrich doctoral experiences and expand scientific reach. Furthermore, the partnership with the Volkswagen Foundation was described as "very successful… [it] enabled us to establish structured PhD programs… and secure double degrees for participants." This shows how foreign-supported programs can sustainably strengthen doctoral education infrastructure.

4.3. Focus Groups with Supervisors

Six focus groups with supervisors from selected universities were conducted, each comprising from 4 to 8 supervisors, and four major themes were identified that correspond well with the rest of the findings.

4.3.1. Recruitment

Recruitment into doctoral programs in Georgia is highly selective and requires strong alignment between a candidate's research interests and the expertise of potential supervisors. Faculty members often take on the role of informal mentors well before the application stage. One academic explained that "it typically takes about a year working with prospective candidates before they are ready to apply, as their initial ideas are often underdeveloped formally." This underscores how the admission process demands extensive preparation, with a focus on formulating a well-developed proposal that demonstrates clear methodology and academic direction. While the academic match is essential, recruitment is shaped by deeper structural challenges. Financial insecurity plays a significant role in deterring qualified candidates from entering or staying in academia. As one participant pointed out, "some students are indifferent about staying in academia because staying in the university often means

accepting lower salaries compared to industry opportunities," making academic careers less attractive. Another added that "the lack of financial support and job insecurity are significant barriers for doctoral students, which affect their motivation and the overall success of their programs." These insights highlight the fragility of doctoral recruitment pathways. Despite faculty efforts to guide candidates, the system struggles to retain talent in the face of limited incentives, minimal financial aid, and uncertain career trajectories. To build a more inclusive and sustainable recruitment pipeline, Georgian universities must institutionalize early research training, clarify career pathways, and create stronger incentives to keep capable researchers within the academic sector.

4.3.2. Doctoral Program Structure and Access

The structure and accessibility of doctoral programs in Georgia are shaped by uneven institutional capacity, inconsistent regulations, and growing pressure to align with international standards. While reforms have improved certain aspects, challenges persist in ensuring equity across disciplines, managing completion timelines, and fostering inclusive program development. A recurring issue in the interviews was the extended duration of doctoral studies. One academic explained that "while a three-year timeline for completing a PhD is typical, some students can take much longer, sometimes up to five or more years." This was seen as problematic for maintaining supervisory quality and ensuring students make timely progress. As a result, some universities are considering limits on the duration of doctoral studies to avoid overburdening supervisors and to safeguard program quality. Others emphasized that doctoral progress depends on more than just time. One faculty member observed, "Improving integration and support for doctoral students requires more than just financial resources." Instead, structured planning is key, as they noted: "research should be a continuous process rather than starting late in the program," advocating for individual research plans with clear milestones and regular review mechanisms. Without such structures, students fall behind, and completion is delayed. Another concern raised was that "institutional changes are needed, including revisions in policies and structures, to create formal guidelines for reporting the progress of young researchers." In many programs, these mechanisms remain informal or are applied inconsistently, which complicates tracking and supporting doctoral trajectories. Interviewees also pointed to field-specific inequalities. Some disciplines, such as engineering or the arts, struggle to attract doctoral candidates due to higher infrastructural needs or lower funding. Meanwhile, fields with fewer material requirements expand more easily. The result is

a doctoral landscape where accessibility is shaped more by logistics than by academic demand or societal need. To address these disparities, institutions must move beyond compliance and toward a holistic redesign of doctoral structures. This includes equitable program support, better field distribution, clear supervision and evaluation models, and expanded professional development opportunities for both students and faculty.

4.3.3. Funding, Resources, and Collaboration

The themes of funding, institutional resources, and international collaboration are central to the effectiveness and sustainability of doctoral education in Georgia. Across institutions, stakeholders expressed concern that the current level of does not adequately support either doctoral students or their research trajectories. One academic described the structural challenges facing technical universities: attracting students to fields such as geology, metallurgy, and energy is difficult due to low employment prospects and limited student interest at the bachelor's level. While some improvement was noted in fields like energy, the funding gaps at the doctoral level remain stark. "Unlike in many European and American institutions, doctoral students in our university must pay for their studies," a participant explained, highlighting how this financial burden, paired with low assistant professor salaries, creates a persistent obstacle. Many doctoral candidates who serve as teaching or research assistants face an unsustainable balance between academic duties and financial responsibilities. Adding to these burdens are new national requirements that dissertations be reviewed by foreign experts and translated into English. These added demands not only increase costs but also highlight the limitations of a funding model that relies heavily on tuition fees. "Our institution does not have additional revenue streams," one contributor stated, "so we cannot offer much support to doctoral students or supervisors." The financial sustainability of doctoral education thus remains a pressing concern, undermining efforts to improve program quality and supervisory capacity. These insights suggest that financial insecurity and underfunding are systemic, affecting everything from program design to international competitiveness. While universities increasingly seek soft funding from donors or international projects, such models remain fragile and unevenly distributed. Industry collaboration, though widely acknowledged as important, remains limited and informal. To move forward, institutions and policymakers must implement stable funding strategies-combining public investment, targeted grants, and structured partnerships with the private sector. Equally important is improving access to international mobility schemes and embedding collaborative research into the doctoral

experience. These reforms are critical for enhancing the attractiveness and resilience of doctoral education in Georgia

4.3.4. Research, Skills, and Support

The ability of doctoral education in Georgia to foster strong research engagement and skills development is shaped by both institutional capacity and external support mechanisms. While some improvements have been made, major concerns persist around the lack of structured support systems, limited development of transferable skills, and a weak research culture. One academic raised a key structural issue: "Why should someone be interested in taking on the responsibility of supervising a doctoral student?" Although supervisors receive some compensation calculated per semester, this is "not necessarily a strong motivating factor," indicating limited institutional incentives for high-quality supervision. Funding for students is also inconsistent. As one participant noted, the Rustaveli Foundation only provides support after students enroll, unlike in Germany, where "funding is secured before enrollment based on an approved research topic." Another contributor highlighted a small yet impactful initiative: students publishing in reputable journals like Web of Science or Scopus receive additional financial incentives, positively affecting student motivation and raising publishing standards. However, such measures remain isolated. The lack of autonomous learning and technical competence was also noted. One academic observed, "students are unable to independently conduct certain research tasks, particularly when it comes to complex models or analytical work." To manage this, supervisors often guide students toward simpler research topics more aligned with their existing strengths. These insights underline the need for structured, ongoing development of both research and transferable skills, such as grant writing, digital literacy, academic communication, and project management. Access to projects, co-authorship, and cross-institutional engagement are largely dependent on individual supervisors or informal networks rather than systemic design. Moreover, the commercialization of research output remains rare. Although some institutions have begun to engage with industry or host research events, these examples remain exceptional rather than systemic. Improving this situation requires national coordination around doctoral skills frameworks, integrating soft and technical skills into curricula, and institutional investment in mentoring, research engagement, and applied learning environments.

Commentary

The findings from Chapter IV reveal a complex and evolving picture of doctoral education in Georgia, informed by the perspectives of three key stakeholder groups - policy makers, university senior management, and supervisors. Each group engages with the sector from a different position within the system, resulting in overlapping priorities but also distinct emphases.

Across all groups, the 2024 doctoral education framework is acknowledged as a milestone in setting clearer expectations for program quality, transparency, and alignment with national priorities. Policy makers view it as a strategic tool to reduce low-quality provision, encourage institutional selectivity, and promote priority fields. University leaders see it as a mechanism for standardization and quality enhancement, while supervisors focus more on its implications for workload regulation and the feasibility of delivering on its requirements. While the reform's intent is broadly supported, stakeholders differ in their assessment of its practicality - policy makers emphasize the potential for structural change. In contrast, supervisors highlight the operational pressures it creates.

Funding emerges as a shared concern, but the framing varies. Policy makers speak of a new funding model, to be fully implemented by 2027, that will direct resources toward nationally prioritized disciplines. University leaders discuss the challenges of securing adequate institutional funding streams, especially for resource-intensive fields such as engineering and the arts. Supervisors focus on the immediate consequences for students - tuition costs, limited stipends, and the pressures of balancing paid work with doctoral research. Across the board, there is recognition that without predictable and sufficient funding, quality aspirations will be difficult to achieve.

Internationalization is another theme uniting the groups. Policy makers present it as a strategic goal, encouraging joint and dual doctoral programs and cross-border collaboration. University leaders have begun embedding it structurally, establishing international doctoral schools and pursuing accreditation from global bodies. Supervisors see its potential for enriching research quality and visibility, yet point to the uneven distribution of opportunities and the dependence on individual networks.

Supervision quality is a point of both convergence and divergence. All groups recognize the importance of strong supervisory relationships, but their priorities differ. Policy makers stress caps on supervisory loads and the necessity of formal eligibility criteria. University leaders focus on monitoring processes and merit-based selection of supervisors. Supervisors themselves discuss the realities of providing quality mentorship within workload constraints, the challenge of maintaining engagement across disciplines with different publishing cultures, and the inequalities that arise from varying levels of professional networks.

Skill development and research culture are recurrently mentioned, but from different angles. Policy makers highlight the need to integrate transferable skills into doctoral programs. University leaders describe existing training opportunities but acknowledge gaps in uptake and consistency. Supervisors point to deficits in autonomous research skills, technical competence, and engagement with applied or industry-linked projects, noting that these shortcomings often lead to simplified research topics.

Despite differences in emphasis, the overarching message is consistent: doctoral education in Georgia is in a transitional phase, with reform momentum in place but systemic constraints slowing progress. Bridging the gap between policy intent and implementation will require an integrated strategy that aligns national priorities with realistic funding mechanisms, enforces mandatory professional development for supervisors, embeds skill development in all programs, and strengthens the interface between academia, industry, and international partners. Only through such coordinated action can the aspirations for quality, relevance, and global competitiveness in Georgian doctoral education be fully realized.

Chapter V: Accreditation Findings and Trends in Doctoral Education

Introduction

This report presents a systematic analysis of 29 doctoral program accreditation reports conducted in Georgia between 2022 and 2024, some of which were reviewed within the framework of cluster accreditation. The purpose of this analysis is to identify thematic trends, assess alignment with national quality standards, highlight good practices, and offer evidence-based recommendations to enhance doctoral education across institutions.

Program accreditation **is** a formal external quality assurance process led by the National Center for Educational Quality Enhancement (NCEQE)**.** It involves the periodic evaluation of academic programs to ensure they meet established standards of academic integrity, relevance, and quality. In Georgia, these standards are based on the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)**,** which emphasize the principles of transparency, accountability, student-centered learning, and continuous improvement.

Accreditation serves both as a regulatory mechanism and as a developmental tool to foster academic excellence and innovation. Each doctoral program is assessed against a set of five overarching standards**,** subdivided into 19 components**,** covering the full spectrum of doctoral education design and delivery. These include:

1. Program Objectives and Curriculum Design - alignment of goals with national qualifications, clarity of learning outcomes, and coherence of structure.
2. Teaching, Learning, and Assessment - methodologies, supervision quality, skills development, and evaluation mechanisms.
3. Student Support and Academic Guidance - supervision, mentoring, consulting services, and tracking student achievement.
4. Human and Material Resources - faculty qualifications, staff development, and availability of research infrastructure.
5. Quality Assurance and Improvement Mechanisms - internal and external QA processes, monitoring, and evidence-based enhancement strategies.

The accreditation process involves peer review by a panel of independent experts, analysis of documentation, and site visits to the institution. Programs are evaluated using a four-point scale: *Complies*, *Substantially Complies*, *Partially Complies*, and *Does Not Comply*. The outcomes of these evaluations inform decision-making regarding program development, funding, and continued authorization.

In the chapters that follow, the report analyzes each standard in depth and identifies recurring strengths and weaknesses.

5.1 Compliance with the standard requirements

The compliance review of doctoral education standards reveals a generally positive alignment with key requirements, though variation exists across specific components. Most standards demonstrate a high degree of compliance, with **"Complies"** ratings dominating in nearly all areas. Notably, components such as 4.5 Financial Sustainability and 4.1 Human Resources show the strongest compliance rates, reflecting stable structural support and staffing in doctoral programs. Conversely, components like 1.4 Structure & Content and 2.2 Skills Development exhibit a more balanced distribution between "Complies" and "Substantially Complies," indicating partial implementation of more advanced or flexible curricular models and competence-building mechanisms. Some areas, such as 5.1 Internal Quality Assurance and **3.2 Supervision,** reveal systemic challenges. While compliance is formally achieved in many cases, the number of "Substantially Complies" ratings suggests room for improvement, particularly in embedding consistent internal review mechanisms and strengthening supervisor training and oversight. Only isolated instances of "Partially Complies" and a single "Does Not Comply" mark **(**1.5 Academic Course Quality**)** suggest minor critical gaps that may be addressed through targeted revision.

Standard Component	Complies	Substantially Complies	Partially Complies	Does Not Comply
1.1 Programme Objectives	25	3	1	0
1.2 Learning Outcomes	21	7	1	0
1.3 Evaluation Mechanisms	19	10	0	0
1.4 Structure & Content	16	10	3	0
1.5 Academic Course/Subject	18	10	0	1
2.1 Admission Preconditions	23	6	0	0
2.2 Skills Development	16	12	1	0
2.3 Teaching Methods	25	4	0	0
2.4 Student Evaluation	19	9	1	0
3.1 Student Support Services	26	2	1	0
3.2 Supervision	21	8	0	0
4.1 Human Resources	27	2	0	0
4.2 Supervisor Qualification	26	3	0	0
4.3 Staff Development	22	7	0	0
4.4 Material Resources	23	5	1	0
4.5 Financial Sustainability	28	1	0	0
5.1 Internal QA	20	8	0	1
5.2 External QA	25	4	0	0
5.3 Monitoring & Review	21	8	0	0

Table 27. Distribution of Compliance Ratings Across Doctoral Education Standards

The results indicate a maturing system with well-established foundations. However, ongoing refinement is needed in supervision practices, internal QA, and the full integration of transferable skills and student-centered learning frameworks.

5.2 Review of recommendations, suggestions, and best practices

The detailed analysis of the reports, best practices, recommendations, and suggestions gave a clear picture of the strong points and areas of improvement in doctoral programs from the reviewers' point of view.

The analysis of Standard 1 provides an opportunity to explore the essential components of the design and implementation of doctoral education programs. This standard represents an integrated framework encompassing the philosophical foundation of the program, outcome-oriented learning, assessment mechanisms, content structure, and the quality of subject-specific modules.

Subsection 1.1, which relates to the articulation of the program's educational goals, is sometimes presented superficially. Some programs define goals that focus solely on the educational component, paying limited attention to the research function - an essential feature in the context of doctoral education. Evaluation texts indicate that many programs lack a clear connection between their stated goals and either the National Qualifications Framework or the logic of the dissertation process. Even where goals are more explicitly formulated, they often remain declarative and are not reflected in the program's curriculum or its methods of delivery.

Subsection 1.2, addressing the formulation of learning outcomes, is often grouped with other subsections in the evaluation reports. Where it is discussed explicitly, reviewers point out that outcomes are frequently too general and not fully aligned with the expected level of doctoral training. In many cases, the outcomes do not reflect the skills needed for doctoral candidates to develop as independent researchers. There is also insufficient emphasis on components such as research ethics, academic writing, and knowledge dissemination - each of which is critical at the third cycle level.

Subsection 1.3, focused on mechanisms for assessing learning outcomes, is more clearly documented in the reports. In many programs, the assessment systems are neither sufficiently transparent nor effectively aligned with stated learning outcomes. Evaluation panels often note that assessment formats fail to reflect program goals and that there is no strong link between teaching activities, assessment methods, and intended results. In some cases, syllabi lack weekly breakdowns of topics and tasks, which hampers predictability in the learning process and weakens the ability to ensure meaningful assessment. The need for relevant assessment

formats - such as research portfolios, publication preparation, and academic presentations - is repeatedly emphasized, as these more appropriately match the nature of doctoral-level study.

Subsection 1.4, which concerns the structure and content of the program, is one of the most extensively analyzed components. A recurring issue is the excessive number of mandatory courses in doctoral programs. Evaluation documents highlight that this approach contradicts the principle of academic freedom and hinders the individualized research development of doctoral candidates. For instance, one evaluation states that strictly imposed core courses do not align with candidates' dissertation topics or the specificity of their research. Recommendations emphasize the need for a more flexible structure with an expanded selection of elective modules. Supervisors are encouraged to provide individualized mentoring to help candidates build tailored study plans. In another case, a philology program was advised to revise its structure to reflect current trends in Kartvelian linguistics and to integrate contemporary scientific discourse into the curriculum.

Subsection 1.5, which addresses the quality of academic courses and syllabi, is among the most technically detailed. Reports frequently cite deficiencies such as the absence of up-to-date literature, unclear assessment criteria, and the continued use of outdated sources. One evaluation observed that the listed literature was unfocused and obsolete, that there was no standard for bibliographic referencing, and that some course titles lacked terminological precision, making them difficult to interpret in an international context. Additional feedback called for a significant increase in English-language scholarly sources and the inclusion of foundational texts aligned with the field. In one case, a course titled Linguoculturology was recommended for revision to better conform to internationally recognized terminology and doctoral-level academic standards.

Taken together, the analysis of Standard 1 reveals that doctoral programs in Georgia still require systematic refinement. Despite some visible progress, many programs lack a genuinely outcome-based design, fall short in supporting doctoral candidates' autonomy, and do not sufficiently integrate a modern research environment into their curricula. The accreditation process has helped identify both good practices and persistent challenges, raising important questions about content alignment, structural coherence, and methodological rigor. Particularly notable are examples where supervisors are already playing proactive roles in shaping individual learning paths or where programs aim to foster specialized research competencies through targeted curricular design.

Standard 2 explores how doctoral programs ensure the systematic and coherent delivery of educational content, the development of practical and research competencies, and the alignment of assessment mechanisms with program objectives and outcomes. It encapsulates four key areas: admission procedures, skill development, teaching methods, and student evaluation strategies. This standard reflects the operational core of doctoral program implementation and its responsiveness to both academic quality and real-world applicability.

2.1 Programme Admission Preconditions - Admissions procedures in many doctoral programs are formally in place, yet challenges remain regarding accessibility and international visibility. Several reports highlight that program admission information is either inconsistently presented across platforms or lacks transparency for international applicants. A good practice noted at TSU suggests making doctoral program entry requirements accessible online and in English to attract international students and foster transparency.

Moreover, some programs have been advised to incorporate plagiarism checks during the application phase to strengthen academic integrity from the outset. Such preventative quality mechanisms are increasingly important in the context of growing academic mobility and competition.

2.2 Development of Practical, Research, Creative, and Transferable Skills - This subsection emerges as a critical focal point in evaluations. Many programs still view doctoral training through a predominantly academic lens, underemphasizing the importance of transferable skills and engagement with applied research. Nevertheless, there are promising examples: some institutions have renewed cooperation agreements with museums, galleries, or research institutions to provide field-specific placements for doctoral students, particularly in the arts and humanities.

Recommendations across evaluations urge universities to enhance student involvement in funded international projects, to increase mobility opportunities (e.g., conferences, collaborative research), and to promote co-authored publications between supervisors and candidates. For instance, ATSU's Philology program was commended for encouraging co-publication. In contrast, TSU's Art History and Theory program has been advised to deepen cooperation with external institutions to broaden research contexts.

In several programs, doctoral students are insufficiently engaged in ongoing research projects. Evaluators consistently stress the need to link doctoral dissertations with institutional research priorities formally, facilitate research planning skills, and support students in presenting their work to broader audiences.

2.3 Teaching and Learning Methods-Teaching methodologies are reported to vary widely, with some programs relying heavily on traditional lecturing rather than student-centered approaches. Reports recommend a more structured use of modern teaching methods, especially online and blended formats - an issue amplified by the post-pandemic shift to digital education.

A commendable practice observed in some of the programs includes faculty development training focused on modern pedagogies and the integration of contemporary digital tools. Furthermore, GTU's Chemistry program was praised for initiating staff training on innovative teaching methods. Evaluation teams also note the need for better-designed research methodology courses, ideally integrating contemporary technologies, including AI.

Additionally, assistantship structures lack consistent quality assurance in some programs. It is recommended that programs adopt a common standard for assistantships, linking them with specific learning outcomes and implementing site visits to monitor the process.

2.4 Student Evaluation - Assessment strategies are another critical area where variation is substantial. While some programs have well-defined rubrics and transparent grading schemes, others lack sufficient detail in their syllabi regarding assessment criteria. For example, one evaluator noted that in some syllabi the same assignment is scored in an overly broad range (e.g., 16-20 points), raising concerns about fairness and standardization.

Programs are advised to introduce moderation or double-marking systems to enhance the consistency of grading, especially for components such as dissertation evaluation. ILIAUNI's Linguistics and Literary Studies program is specifically recommended to explore such moderation practices. Furthermore, the importance of clear rubrics in syllabi is underscored across multiple reports.

A pressing issue identified in several programs is the lack of a robust plagiarism detection mechanism. While some universities rely on external partners for manuscript checks, the

recommendation is to develop or license institutional platforms with more direct access for staff and students, ensuring regular and systematic academic integrity checks.

From the reviewers' point of view, Standard 2 highlights the functional dimensions of doctoral program delivery and evaluation. While most programs formally comply with expectations, substantial variations remain in implementation depth and effectiveness. Admissions processes need to become more inclusive and internationally visible. Practical and transferable skill development must be more systematically embedded in program design and delivery. Teaching methods should evolve toward more interactive and research-led models, and assessment practices require increased standardization and transparency.

Good practices such as co-publication with supervisors, targeted international mobility, and curriculum-linked assistantships offer promising directions. However, their adoption is still fragmented. Achieving alignment with the goals of doctoral education will require continued investment in faculty development, the creation of structured research ecosystems, and robust student assessment mechanisms rooted in integrity and academic excellence.

Standard 3 addresses the institutional conditions and academic culture that shape the doctoral experience - from student guidance and supervision to support services and mechanisms for promoting academic success. It encompasses three interrelated areas: consulting and support services, quality of supervision, and recognition and evaluation of student achievements.

3.1 Student Consulting and Support Services - The analysis of this subsection reveals that while most institutions formally have student support services in place, their accessibility and effectiveness vary widely. In many cases, doctoral students are not fully aware of available consulting mechanisms, and institutional websites often provide only minimal or outdated information.

Although detailed good practices are not frequently documented in this area, evaluators highlight the need for more proactive support structures, such as designated academic coordinators or doctoral school liaisons, who could help students navigate administrative and academic requirements more effectively. In addition, career counseling services tailored to PhD candidates remain underdeveloped. Programs are advised to integrate career development tools, including workshops on publishing strategies, grant applications, and non-academic career pathways.

One recurrent recommendation is the establishment or improvement of centralized doctoral hubs, either physical or digital, to consolidate resources, event announcements, mobility opportunities, and supervisor contact information. Without such platforms, communication gaps persist, limiting students' ability to benefit from institutional offerings fully.

3.2 Master's and Doctoral Student Supervision - Supervision emerges as a cornerstone of doctoral education and one of the most commented-on areas in the evaluations. While many supervisors are recognized for their academic engagement and professionalism, the overall system often lacks consistency, formal training, and mechanisms for monitoring supervisory quality.

Some institutions have introduced periodic self-assessment tools and co-supervision models, which are viewed positively. However, most programs still operate without a shared framework for supervision responsibilities, feedback frequency, or expectations regarding dissertation timelines. In one case, the evaluation notes that "either the publication requirement before dissertation defense should be removed, or a stronger supervisor-student publishing system must be created", pointing to the mismatch between expectations and support infrastructure.

Good practices noted include the development of cluster-wide joint training sessions for supervisors and the encouragement of co-publications, which enhance both academic output and mentoring quality. However, such initiatives remain isolated. System-wide policies on supervision (including training, workload management, and ethical responsibilities) are recommended to ensure equitable support for all doctoral candidates.

3.3 Student Achievements and Individual Work - This subsection highlights the need to document, evaluate, and promote doctoral students' academic outputs and achievements better. While many students are engaged in meaningful research, their results are not always visible either within or beyond their institutions. Evaluators frequently note the absence of centralized records tracking conference presentations, publications, grant participation, or awards, making it difficult to assess a program's overall success.

Institutions are encouraged to establish achievement tracking systems and to publicly showcase doctoral accomplishments through newsletters, online portfolios, or research days. Additionally, programs are urged to formalize individual work plans between students and

supervisors. These should include clear milestones, mechanisms for progress review, and expectations regarding publications and conference engagement.

In programs where such individual plans exist, evaluators note greater transparency and student motivation. Conversely, in their absence, supervision tends to be more reactive than developmental, limiting the strategic growth of the doctoral experience.

Standard 3 reflects the human dimension of doctoral education: the relationships, guidance, and support structures that define a candidate's academic journey. Despite general compliance with formal requirements, institutions need to invest more deliberately in supervisory quality, student advising, and achievement recognition.

The lack of structured supervision frameworks, limited visibility of doctoral accomplishments, and fragmented support mechanisms point to a broader need for professionalization in the management of doctoral training. Promising practices such as co-supervision models, achievement documentation systems, and structured supervisor training offer valuable models for scaling up across institutions.

Ultimately, ensuring student success in doctoral education is not only about research output, but also about embedding a culture of sustained support, clear communication, and academic care.

Standard 4 examines the infrastructural, academic, and institutional capacities that underpin the effective delivery of doctoral education. This standard includes human resources (academic, research, and administrative personnel), the qualifications and development of supervisors, and the availability and quality of physical and technological resources. These elements form the operational backbone of doctoral programs and shape both the learning environment and the research culture.

4.1 Human Resources - The evaluation reports indicate that human resource sufficiency is formally addressed in most doctoral programs. However, concerns are raised about sustainability, workload balance, and the strategic distribution of faculty expertise. In several cases, evaluators point to an overreliance on a small number of professors or supervisors creating bottlenecks in doctoral supervision and limiting the breadth of thematic specialization.

Recommendations include developing a long-term staffing plan to ensure a balanced and sustainable faculty base. Programs are also encouraged to integrate postdoctoral researchers into teaching and supervision structures as a means to support workload and increase intellectual diversity.

In cases where clusters or institutional consortia exist, joint resource-sharing strategies are encouraged. For example, one recommendation suggests that clusters develop coordinated approaches to training, mentoring, and academic leadership, though this has not yet become widespread practice.

4.2 Qualification of Supervisors of Master's and Doctoral Programs - Although most programs assign supervisors who meet minimum academic qualifications, the system often lacks a structured framework for verifying or renewing supervisory eligibility. Rarely do institutions require evidence of recent research activity, publication, or engagement in international projects as a prerequisite for supervision.

The absence of formal policies defining supervisory responsibilities and expectations is frequently highlighted. Evaluation teams recommend introducing written criteria that go beyond formal academic ranks - emphasizing active research engagement and mentoring experience. Without this, the quality of supervision varies significantly within and between institutions.

A more robust supervisory selection and review process, potentially coordinated by centralized doctoral schools, is seen as a key step toward ensuring program quality and equity in supervision standards.

4.3 Professional Development of Academic, Scientific, and Invited Staff - Professional development remains one of the weakest components in the doctoral education landscape. Only a few institutions offer targeted training for academic staff involved in doctoral programs, and even fewer provide incentives or structured career development tracks for early-career researchers.

Nonetheless, one good practice noted involves a doctoral cluster initiating a joint training plan for academic personnel, which could serve as a model. Recommendations encourage establishing systematic professional development programs covering not only research

methods and publication strategies but also digital pedagogy, research ethics, and supervisory practice.

Importantly, evaluations note that development should be tied to quality assurance mechanisms: tracking participation, impact, and alignment with institutional goals. Integrating feedback from doctoral students on supervision and teaching quality could further inform professional development priorities.

4.4 Material Resources - Material infrastructure is generally sufficient in terms of basic physical space and library access. However, limitations persist regarding access to specialized software, databases, laboratory equipment, and high-speed internet - particularly in regional universities or discipline-specific programs (e.g., experimental sciences, digital humanities).

Reports advise institutions to align their resource planning with the specific research needs of each doctoral program. This includes budgeting for academic databases, upgrading laboratory equipment, and ensuring digital access to international journals. In at least one case, an external peer review of material resources is recommended to assess adequacy objectively.

The role of clusters and consortium models is again emphasized here, particularly for disciplines that require expensive shared infrastructure. Strategic planning at the cluster level rather than fragmented institutional investments is presented as an efficient way to ensure resource quality and sustainability.

Standard 4 illustrates the foundational role of human and material resources in supporting the ambitions and effectiveness of doctoral education. While many Georgian institutions meet baseline requirements, there is still a significant gap between minimum compliance and strategic resource development.

The recommendations are clear: doctoral education must be supported by qualified and actively engaged supervisors, opportunities for continuous professional development, and material infrastructure that evolves with the research demands of the program. Good practices such as cross-institutional training initiatives and resource-sharing clusters point to innovative solutions, but they are not yet institutionalized.

Standard 5 evaluates the quality assurance ecosystem surrounding doctoral education. It focuses on institutional mechanisms for internal evaluation, alignment with external review

processes, and the integration of feedback into continuous program enhancement. This standard is vital to ensuring that doctoral programs evolve in step with academic developments, institutional priorities, and the expectations of stakeholders, especially students and supervisors.

5.1 Internal Quality Evaluation - Internal quality assurance remains an underdeveloped component in many institutions. While most doctoral programs formally participate in internal evaluation processes, the use of findings for meaningful improvement is often superficial. Evaluators note that quality assurance units typically collect data (e.g., student surveys, performance indicators), but fail to analyze or act upon the results systematically.

There are cases where the internal quality assurance function is described but not operationalized with sufficient rigor or consistency. In some programs, the responsibility for evaluation falls entirely on administrative units with minimal academic participation. This disconnect weakens the academic ownership of quality assurance and its relevance to curriculum development or supervision improvement.

A good practice observed in one cluster involves joint development and training activities between institutions. Such collaborative efforts can raise the standard of internal quality evaluation across multiple programs by aligning methodologies and creating a shared improvement culture.

Institutions are encouraged to clearly define quality indicators specific to doctoral education (e.g., supervision effectiveness, research output, defense timelines) and to embed continuous monitoring mechanisms in annual program planning and reporting.

5.2 External Quality Evaluation - The role of external quality assurance, particularly national accreditation, is formally embedded in the system. However, the narrative suggests that the process can often become overly procedural, rather than developmental. Several evaluation teams underscore the need for more constructive external peer reviews that go beyond checklist compliance.

One recommendation calls for external evaluations to be carried out with more profound discipline-specific expertise and with a focus on enhancing, rather than only verifying, quality.

This reflects a broader shift in international higher education from accreditation as audit to accreditation as capacity-building.

There is also a need for better synergy between internal self-assessment and external feedback processes. Reports recommend that institutions use external evaluations not as isolated interventions, but as opportunities to trigger internal dialogue and strategic planning.

5.3 Programme Monitoring and Periodic Review - Systematic program monitoring is inconsistently implemented across institutions. While most doctoral programs undergo some form of periodic review, the mechanisms are often ad hoc or documentation-driven, rather than dynamic and participatory. In many cases, reviews focus on administrative compliance rather than on evaluating learning outcomes, student experience, or research relevance.

Some institutions lack a formal periodic review cycle, or the documentation produced is not used in decision-making processes. This undermines the potential of program monitoring to drive innovation or address long-standing structural issues.

Recommendations emphasize the importance of involving supervisors, doctoral candidates, and external stakeholders in the monitoring process. Multidimensional feedback loops that incorporate data from course evaluations, defense results, and graduate tracking to inform program revisions are considered essential.

Standard 5 sheds light on how doctoral programs manage their own improvement. While formal procedures for quality assurance exist in most institutions, they often fall short of fostering a culture of reflection and innovation. The gap between compliance and enhancement remains wide.

Developing internal capacities for evidence-based review, linking internal and external evaluations, and ensuring that monitoring is continuous and not episodic are key priorities. The good practice of cross-institutional collaboration on quality training offers a scalable model, yet such initiatives are currently rare. Ultimately, quality assurance in doctoral education should be a living process integrated into the academic fabric of the institution, co-owned by all stakeholders, and oriented toward both excellence and adaptability. Standard 5, therefore, represents not just a technical function but a core enabler of sustained academic development.

Commentary

Chapter 5 offers a comprehensive and well-structured analysis of 29 doctoral program accreditation reports from 2022 to 2024, including several reviewed under Georgia's cluster accreditation initiative. By aligning the analysis with national standards-rooted in the ESG (Standards and Guidelines for Quality Assurance in the European Higher Education Area) - the chapter situates the Georgian experience within a broader European framework of doctoral education reform and quality assurance.

One of the most commendable aspects of this chapter is its methodical progression through all five standards and their associated components. Each standard is treated not only as a regulatory benchmark but as a window into institutional culture, pedagogical coherence, and systemic maturity.

The chapter convincingly demonstrates that compliance rates are generally high across the board, especially for structural indicators such as financial sustainability (4.5), human resources (4.1), and supervisor qualifications (4.2). This signals a relatively stable institutional foundation for doctoral education in Georgia. The prominence of "Complies" ratings also suggests that most programs are succeeding in meeting the minimum requirements of the national accreditation framework.

However, the commentary does not shy away from exposing substantive challenges. It identifies recurring weaknesses in areas that are arguably more formative than procedural: transferable skills development (2.2), internal quality assurance (5.1), and supervision practices (3.2). These findings echo concerns raised in European-wide reviews, which point to supervision and research environment quality as the most variable and least standardized dimensions of doctoral education.

The use of concrete examples, such as the overreliance on outdated literature in course syllabi (1.5), or the lack of clear rubrics in student assessment (2.4), provides authenticity and clarity. These observations reflect a pattern in which formal structures exist, but are not always translated into effective academic practices. Similarly, the emphasis on student-centered approaches, modern pedagogies, and academic integrity mechanisms is not always followed by actionable implementation.

Chapter 5 also offers a valuable look at promising innovations. These include efforts to institutionalize co-publication models between students and supervisors, the development of structured assistantship experiences, and the use of doctoral clusters to share training and infrastructure. While these practices remain scattered, their inclusion points to the capacity for localized innovation and peer learning across institutions.

One of the more critical insights in this chapter concerns the gap between compliance and enhancement. The reports suggest that while institutions are meeting standards, the drive toward innovation, strategic improvement, and internalization of quality culture remains uneven. This reflects a broader tension in quality assurance systems: the tendency to prioritize procedural correctness over transformative learning and research environments.

Conclusions

The analysis of doctoral education in Georgia, drawing on the perspectives of policy makers, university leaders, supervisors, and doctoral candidates, presents a complex picture of a system in transition, marked by significant reforms, growing alignment with European standards, and ambitious strategic objectives, but also by persistent structural, financial, and cultural challenges.

Although this study was conducted independently, it drew on two earlier Erasmus+ reports as additional reference points: the 2012 study coordinated by Prof. Nino Javakhishvili and the 2020 research led by Prof. Irine Darchia. While differing in methodology, scope, and timing, these studies provided valuable insights into the evolving landscape of doctoral education in Georgia. By revisiting their findings, this research aimed to explore what has changed and which systemic issues persist. Notable progress has been made. The adoption of the 2024 Framework for Doctoral Education and the introduction of cluster accreditation mark a significant shift toward alignment with European standards. These reforms reflect a growing national commitment to structured programs, supervision quality, and quality assurance. However, many of the core challenges identified in the earlier studies remain unresolved - funding is still fragmented, supervision is inconsistent, research integration is weak, and internationalization is structurally limited. Doctoral candidates continue to be viewed primarily as students rather than researchers. While regulatory frameworks have evolved, practical implementation remains uneven. Importantly, this study does not aim to make direct recommendations to isolated bodies. Instead, it emphasizes shared responsibility among government, agencies, institutions, supervisors, and society as the only viable path toward building a coherent, high-quality, and sustainable doctoral education system in Georgia.

At the policy level, the 2024 introduction of new doctoral standards is widely regarded as a milestone, offering clearer expectations for program design, supervision, and quality assurance. These reforms are expected to reduce the number of programs, focusing resources on those that meet rigorous academic and infrastructural criteria. The shift represents not only an administrative tightening but also a philosophical commitment to aligning doctoral education with national priorities and international norms. However, the absence of a dedicated national doctoral strategy and a coherent research strategy limits the potential impact of these reforms. While doctoral education is embedded in the Education and Science Strategy 2030, the lack of

agreed priority research areas, uneven funding policies, and insufficient coordination between institutions and the state hamper the development of a strategically focused doctoral landscape.

Funding emerges as a critical bottleneck. Both national and institutional stakeholders identify the inadequacy of current financial support as a significant constraint on program quality and doctoral candidate success. Plans for a new national funding model by 2027, coupled with the development of a data management system, signal progress toward more equitable, priority-driven resource allocation. However, in the present, many doctoral candidates must pay tuition, balance academic work with outside employment, and cover the costs of essential research activities, including the translation of dissertations and publication in indexed journals. These financial pressures directly affect recruitment, retention, and timely completion, disproportionately disadvantaging candidates in less-funded disciplines such as the humanities and social sciences.

The statistical profile of doctoral education underlines these challenges. According to the latest aggregated data, Georgia has just over 2,000 active doctoral candidates, with enrolments concentrated in a handful of prominent universities in Tbilisi. Four state institutions account for the majority of doctoral registrations, while regional universities and private providers maintain much smaller cohorts. STEM fields, social sciences, and humanities dominate enrolment patterns, but growth is uneven: engineering, agriculture, and specific health-related fields remain underrepresented despite being identified as national priorities. Completion rates remain low, with average time-to-degree frequently exceeding the nominal three-year duration, and a substantial proportion of candidates taking five years or more to finish. Attrition is influenced by financial hardship, employment pressures, and limited supervisory capacity, reflecting both systemic and institutional weaknesses. The gender balance across enrolments is relatively even overall, though field-level disparities persist, with men overrepresented in engineering and technology and women concentrated in education and the humanities.

The internationalization of doctoral education is a shared strategic priority across institutions and policy frameworks. Joint and dual degree programs, though still limited in number, are seen as vehicles for raising academic standards, expanding research opportunities, and integrating Georgian higher education into global networks. Partnerships with foreign universities, mobility schemes, and donor-supported initiatives, such as those funded by the Volkswagen Foundation, demonstrate the transformative potential of structured international collaboration. However, uptake remains uneven, hindered by institutional capacity, political

constraints, and the need for more proactive, university-led engagement. The introduction of hybrid and distance learning formats offers new possibilities for cross-border cooperation, but concerns about monitoring and quality assurance persist at the national level.

Within institutions, quality assurance mechanisms for doctoral education have evolved significantly since 2018. Regular program reviews, plagiarism detection systems, and limits on supervisory loads reflect a stronger focus on academic integrity and candidate support. Supervisor training programs are increasingly available, covering topics from research ethics to dissertation management, but participation is not yet mandated nationwide. This creates variability in supervisory quality, which is compounded by workload pressures, disciplinary differences, and uneven access to professional networks. While some supervisors actively mentor candidates and facilitate publication opportunities, others provide minimal engagement, leading to disparities in doctoral experiences and outcomes.

Supervision policies have become more formalized, with most institutions capping the number of PhD candidates per supervisor and setting eligibility criteria based on academic rank and research output. Flexible matching processes, opportunities for co-supervision (including with external experts), and periodic feedback surveys are being used to improve supervisory relationships. Nevertheless, challenges remain in fostering consistent, high-quality mentorship, particularly in disciplines where research is conducted in isolation or where supervisors themselves have limited publication records.

Doctoral candidate trajectories are influenced by rigorous but varied admission requirements, often including proof of language competence and a detailed research proposal. Some universities require pre-application supervisor endorsement, while others allow for post-admission matching. Intakes are deliberately small to preserve supervision quality, but this also limits opportunities for broader access. Individual study plans are valued for their adaptability, yet formalized structures for monitoring progress remain inconsistent. Dissertation preparation is often hindered by the high demands of publishing in international outlets, which can lead to financial and logistical barriers that delay completion.

Support services for doctoral candidates have expanded in recent years. Orientation programs, academic writing centers, transferable skills workshops, peer networks, and mental health counseling are increasingly part of the doctoral environment. Universities provide targeted financial support for conference participation and open-access publication fees, though these

resources vary widely. Engagement in externally funded research projects is an important source of academic experience and income, but participation depends heavily on individual supervisors and institutional networks.

Recruitment into doctoral programs is highly selective, with emphasis on research alignment between candidate and supervisor, yet the low attractiveness of academic careers relative to industry undermines it. The preparation phase before application is often long and informal, with faculty guiding prospective candidates. Once enrolled, candidates face structural disparities across fields: STEM and priority disciplines enjoy more funding and infrastructural support, while others struggle to attract candidates or secure resources.

The research culture within Georgian doctoral education is developing but still uneven. While some institutions foster vibrant communities of practice, interdisciplinary clubs, and international project involvement, others remain fragmented. Transferable skills development, essential for careers both within and beyond academia, is underdeveloped, with gaps in grant writing, science communication, and advanced methodological training. The system's reliance on individual initiative, rather than structured, systemic provision of such skills, limits the preparedness of graduates for diverse career paths.

The role of industry collaboration in doctoral education remains largely aspirational. While recognized as important for innovation and societal impact, current engagement with industry is sporadic and lacks formal integration into doctoral programs. This is a missed opportunity to enhance relevance, diversify funding sources, and expand employment pathways for doctoral graduates.

Across all stakeholder perspectives, several cross-cutting conclusions emerge. First, the reform momentum in Georgian doctoral education is real and has created a more transparent, quality-oriented, and internationally engaged system than existed a decade ago. Second, the sustainability of this progress depends on addressing deep-seated structural issues: the absence of a national research and doctoral strategy, the inequitable and insufficient funding environment, and the lack of consistent, mandatory standards for supervision and candidate support. Third, the promise of internationalization must be matched by greater institutional readiness, stronger policy frameworks, and investment in the infrastructure, both digital and physical, needed to sustain global partnerships. Fourth, doctoral candidates require not only academic guidance but also holistic support systems that address financial stability, mental

health, career development, and research dissemination. Finally, the alignment of doctoral education with societal needs, including the development of professional doctoral tracks and stronger industry links, is essential for ensuring that the system contributes effectively to Georgia's economic, cultural, and scientific advancement.

In sum, doctoral education in Georgia stands at a pivotal point. The reforms of recent years have laid a foundation for a more focused, internationally credible, and quality-driven system. However, without decisive action to close the gaps in funding, strategic coordination, supervisory capacity, and candidate support, the system risks falling short of its potential. Building a coherent national vision for doctoral education - anchored in a clear research strategy, equitable funding model, robust quality culture, and informed by reliable statistical evidence - will be critical for transforming current aspirations into lasting achievement.

Recommendations

To advance the quality, diversity, and international alignment of doctoral education in Georgia, the following priority actions are recommended. These recommendations combine insights from the present study with findings from national datasets, student and staff feedback, and evaluation reports from national accreditation experts, addressing systemic gaps, institutional needs, and candidate experiences in an integrated manner.

Establish a Coherent National Vision and Legal Framework

1. It is recommended to develop a standalone National Doctoral Education Strategy in close consultation with universities, the NCEQE, research funding bodies, supervisors, and doctoral candidates.

2. It is recommended to define clear goals, performance indicators, funding instruments, supervisory standards, and internationalization pathways within this strategy.

3. It is recommended to ensure alignment of the national doctoral strategy with Georgia's education, research, and innovation priorities, as well as with European Higher Education Area (EHEA) standards.

4. It is recommended to revisit the definition and scope of doctoral programs in national legislation and quality assurance standards to reflect diverse and internationally recognized pathways.

5. It is recommended to reaffirm the PhD as a research qualification centered on creating original academic knowledge.

6. It is recommended to formally recognize Professional Doctorates (e.g., EdD, DBA..) as research qualifications that integrate academic inquiry with applied professional problem-solving.

7. It is recommended to enable Industrial Doctorates co-supervised by academic and non-academic partners to address sector-specific challenges.

8. It is recommended to clearly define "structured doctoral program" as including independent research plus organized institutional support such as taught courses, transferable skills training, cohort collaboration, and systematic progress monitoring.

9. It is recommended to undertake a system-wide review of all doctoral programs, guided by the 2024 framework and accreditation outcomes, to assess quality, supervisory capacity, graduate outcomes, and research relevance.

10. It is recommended to concentrate resources in areas of institutional strength and national priority while phasing out underperforming or misaligned programs.

Build a Sustainable and Equitable Funding Ecosystem

11. It is recommended to introduce a transparent national funding model providing tuition waivers, competitive stipends, and dedicated research funding for all eligible doctoral candidates.

12. It is recommended to ensure that funding allocations are needs-based, merit-informed, and strategically targeted to priority and interdisciplinary fields.

13. It is recommended to link funding decisions to program performance indicators such as completion rates, research outputs, and societal impact.

Strengthen Quality Assurance, Supervision, and Ethics in Practice

14. It is recommended to ensure complete institutional uptake of the 2024 doctoral education framework through revised regulations, program structures, and supervisory procedures.

15. It is recommended for the NCEQE to evaluate not only legal conformity but also the effectiveness of implementation, providing targeted institutional support where needed.

16. It is recommended to standardize and enhance supervision by introducing national benchmarks for supervisor eligibility, engagement frequency, and feedback quality.

17. It is recommended to require periodic supervisor training, including research ethics, candidate mentoring, and project management.

18. It is recommended to incorporate doctoral candidate feedback on supervision into institutional evaluation systems.

19. It is recommended to elevate research ethics from policy to practice by mandating regular audits of ethics review processes at the institutional level.

20. It is recommended to ensure that operational ethics committees are transparent, accessible, and compulsory for all doctoral research.

Improve Data, Monitoring, and Accountability

21. It is recommended to establish a national doctoral data system to track enrolment, progression, completion, supervisor-to-student ratios, funding flows, international mobility, and graduate outcomes.

22. It is recommended to enable data disaggregation by field, gender, institution type, and cohort to support targeted interventions.

23. It is recommended to define and monitor doctoral success metrics by adopting cohort-based measures for completion, attrition, and time-to-degree.

24. It is recommended to maintain a shared national dashboard of doctoral performance indicators accessible to institutions and policymakers.

Enhance Candidate Support, Inclusivity, and Engagement

25. It is recommended to diversify program delivery formats by offering regulated part-time and modular options, hybrid supervision, and work-integrated models.

26. It is recommended to address the activity-completion gap through structured progression reviews and early intervention for at-risk candidates.

27. It is recommended to advance gender-sensitive policies by providing targeted career services, flexible formats, and re-entry support for women.

28. It is recommended to monitor and address gendered patterns in supervision quality, research opportunities, and candidate inclusion.

29. It is recommended to expand academic and professional support services, including mental health support, career counseling, academic writing assistance, and transferable skills training.

30. It is recommended to support national-level initiatives such as interdisciplinary doctoral seminars, writing retreats, and shared research infrastructure.

Connect Doctoral Education to National and Global Impact

31. It is recommended to strengthen alignment between doctoral education and labor market or innovation priorities by integrating applied research, entrepreneurship programs, and industry collaboration into doctoral training.

32. It is recommended to formalize industry involvement in dissertation planning and co-supervision where possible.

33. It is recommended to deepen the substance of internationalization by increasing the number of high-quality English-taught programs and co-supervised degrees.

34. It is recommended to expand faculty capacity for English-medium instruction and international research collaboration.

35. It is recommended to provide reintegration support for mobile doctoral candidates and to foster long-term global partnerships.

By implementing these recommendations, Georgia can move from a fragmented, compliance-driven provision toward a cohesive, inclusive, and high-impact doctoral education system. This approach will ensure that doctoral training serves as both a driver of national development and a contributor to global knowledge creation.

References

Law of Georgia on Higher Education (2005). Law of Georgia on Higher Education. Official Gazette of Georgia.

Ministry of Education and Science of Georgia (2023). Unified Education and Science Strategy 2023-2030.

Ministry of Education and Science of Georgia (2017). Unified Education and Science Strategy 2017-2021.

Darchia, I. (2020). Doctoral education in Georgia: In the context of the European Higher Education Area. Report prepared for the Higher Education Reform Experts, Erasmus+.

Darchia, I., Glonti, L., Grdzelidze, I., Sanikidze, T., & Tsotniashvili, K. (2019). Analysis of development and implementation of the authorization mechanism for higher education institutions. Erasmus+ National Office Georgia.

European University Association. (2022, June). Building the foundations of research: A vision for the future of doctoral education in Europe [Position Paper]. Council for Doctoral Education.

Javakhishvili, N. (Coord.). (2012). Doctoral education in Georgia. Ilia State University. Supported by the Tempus National Office of Georgia.

Acknowledgement

Appendix 1 - Demographic data and questions used in the student questionnaire

AGE

Gender

SP - Students with special Education needs

Nationality

Type

Region

HEIs

Research Field

S (Supervision)

S1 - My supervisor helps me identify my training and development needs as a researcher

Strongly disagree - strongly agree.

S2 - My supervisor provides feedback that helps me direct my research activities

Strongly disagree - strongly agree.

S3 - I am aware of my supervisors' responsibilities towards me in the process of dissertation writing.

Strongly disagree - strongly agree.

S4 - I am aware of my responsibilities towards my supervisor in the process of dissertation writing.

Strongly disagree - strongly agree.

R (Supervision)

R1 - I have access to the specialized resources necessary for my research

Strongly disagree - strongly agree

R2 -There is appropriate access to physical library resources and facilities

Strongly disagree - strongly agree

RC (Research Community)

RC1- I have access to a good range of seminars in my research area

Strongly disagree - strongly agree

RC2 -I have frequent opportunities to discuss my research with my peers

Strongly disagree - strongly agree

RC3 -I am aware of opportunities to become involved in the wider research community

Strongly disagree - strongly agree

RC4 -The community in my research area influences my work

Strongly disagree - strongly agree

FS (Financial Support)

FS1 Overall, I am satisfied with the financial support mechanisms available for my doctoral studies.

Strongly disagree - strongly agree.

FS2 My institution provides clear information on available financial support mechanisms (scholarships, grants, and so on).

Strongly disagree - strongly agree.

SS   Student Support

SS1 - Overall, I am satisfied with the support services available specifically for doctoral students at my institution.

Strongly disagree - strongly agree.

SS2 - The institution provides sufficient support to help me manage my relationship with my supervisor(s).

Strongly disagree - strongly agree.

SS3 - I feel supported by the institution in maintaining my mental health and work-life balance during my doctoral studies.

Strongly disagree - strongly agree.

SS4 - The institution offers adequate career development support to help doctoral students transition to academic or non-academic

Strongly disagree - strongly agree.

C (Community)

C1- I feel a sense of belonging at my institution

Strongly disagree - strongly agree

C2 - There are sufficient opportunities to interact with other doctoral students

Strongly disagree - strongly agree

C3 - I feel part of a community of doctoral students

Strongly disagree - strongly agree

PA (Progress Assessment)

PA_1 I understand the requirements and deadlines for formal monitoring of my progress

Strongly disagree - strongly agree

PA_2 I understand the required standard for my thesis

Strongly disagree - strongly agree

PA_3 I received an appropriate induction to my research degree programme

Strongly disagree - strongly agree

PA_4 The final assessment procedures for my degree are clear to me

Strongly disagree - strongly agree

RI (Research Integrity)

RI1- My institution has an institutional review board

Yes/no

RI2 - I have submitted my paper to the institutional review board

Yes/no

RS (Research Skills)

RS1 - My confidence to be creative or innovative has developed during my programme

Strongly disagree - strongly agree.

RS2 - My skills in applying appropriate methods, tools, and techniques have developed during my program

Strongly disagree - strongly agree

RS3 - My skills in critical analysis have developed during my programme

Strongly disagree - strongly agree

PD (Professional Development)

PD1 - I have presented a paper at an academic conference

Yes/no

PD2 - I have attended an academic research conference

Yes/no

PD3 - I have submitted a paper for publication

Yes/no

S

S1 - Have you considered leaving the program?

Yes/no

OS (Overall Satisfaction)

OS1 - Overall, I am satisfied with the experience of my research degree programme

Strongly disagree - strongly agree.

OS2 - My institution values and responds to feedback from doctoral students

Strongly disagree - strongly agree.

OS3 - I am confident that I will complete my research degree programme within my institution's expected timescale

Strongly disagree - strongly agree

Appendix 2 – Principal Component Analysis (PCA)

			Component						N of Items	Cronbach's Alpha
			1	2	3	4	5	6		
Progress Assessment	PA_1	I understand the required standard for my thesis	0,897						4	0,874
	PA_4	The final assessment procedures for my degree are clear to me	0,863							
	PA_2	I received an appropriate induction to my research degree programme	0,691							
	PA_3	I understand the requirements and deadlines for formal monitoring of my progress	0,655							
Supervision	S2	My supervisor provides feedback that helps me direct my research activities.		0,841					4	0,819
	S1	I am aware of my supervisors' responsibilities towards me in the process of dissertation writing.		0,760						
	S3	My supervisor helps me identify my training and development needs as a researcher.		0,734						
	S4	I am aware of my responsibilities towards my supervisor in the process of dissertation writing.		0,540						
Student Support	SS2	The institution offers adequate career development support to help doctoral students transition to academic or non-academic			0,844				2	0,846

Category	Code	Item							N	α
	SS3	I feel supported by the institution in maintaining my mental health and work-life balance during my doctoral studies			0,778					
Resources	R2	There is appropriate access to physical library resources and facilities				0,858			2	0,769
	R1	I have access to the specialized resources necessary for my research.				0,797				
Research Community	RC4	The community in my research area influences my work					0,878		2	0,59
	RC3	I am aware of opportunities how to become involved in the wider research community.					0,448			
Belonging	C2	There are sufficient opportunities to interact with other doctoral students.						-0,944	3	0,764
	C1	I feel part of a community of doctoral students.						-0,823		
	C3	I feel a sense of belonging at my institution.						-0,406		
		Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.								
		a. Rotation converged in 10 iterations.								

Appendix 3. Details of the principal components analysis

Progress Assessment includes four items, with Cronbach's Alpha of 0.874, indicating strong internal consistency. The highest-loading item is "I understand the required standard for my thesis" (0.897), suggesting that clarity regarding thesis expectations is a key aspect of progress assessment. Other significant items include "The final assessment procedures for my degree are clear to me" (0.863), reinforcing that transparent evaluation criteria contribute to students' perceptions of progress. The items related to "induction into the research degree" (0.691) and "understanding formal monitoring requirements" (0.655) have lower but still acceptable loadings.

Supervision consists of four items, with a Cronbach's Alpha of 0.819, indicating good reliability. The strongest predictor is "My supervisor provides feedback that helps me direct my research activities" (0.841), emphasizing the importance of constructive feedback in research progress. Other important factors include awareness of supervisors' responsibilities (0.760) and identifying training and development needs (0.734). The weakest loading item is "awareness of responsibilities towards the supervisor" (0.540), suggesting that students may be less confident about their obligations in the supervisory relationship.

Student Support consists of two items, with Cronbach's Alpha of 0.846, reflecting strong reliability. The highest-loading factor is "The institution offers adequate career development support" (0.844), indicating that career guidance plays a crucial role in student satisfaction. The second item, "I feel supported in maintaining my mental health and work-life balance" (0.778), suggests that institutional support for well-being is another critical factor.

Resources include two items, with a Cronbach's Alpha of 0.769, indicating acceptable reliability. The highest-loading item is "Access to physical library resources and facilities" (0.858), reinforcing the role of libraries in supporting doctoral research. The second item, "Access to specialized research resources" (0.797), suggests that discipline-specific resources are also important for research success.

Research Community includes two items, with relatively low reliability (Cronbach's Alpha 0.59). The highest-loading item is "The community in my research area influences my work" (0.878), suggesting that engagement with an academic network can shape research outcomes. However, "Awareness of opportunities to engage in the research community" has a weak

loading (0.448), indicating that students may lack clarity about how to integrate into research networks.

Belonging consists of three items, with a Cronbach's Alpha of 0.764, suggesting acceptable reliability. The strongest predictor is "There are sufficient opportunities to interact with other doctoral students" (-0.944), followed by "Feeling part of a community of doctoral students" (-0.823) and "A sense of belonging at the institution" (-0.406). The negative factor loadings suggest a possible inverse relationship or methodological artifact in the rotation method.

The PCA extraction method was Principal Component Analysis, with Oblimin rotation and Kaiser Normalization. The rotation converged after 10 iterations, indicating a stable factor solution. Overall, the findings highlight the relative importance of supervision, student support, and progress assessment in shaping doctoral student experiences, while the research community component appears to be weaker in comparison.

Appendix 4. Interview guides

Focus Group Discussion Guide

Purpose

This focus group aims to explore perceptions of the importance of (1) internal policies, procedures, and resources for students and supervisory staff and (2) national policy and internationalization.

Part 1: Internal Policies, Procedures, and Resources

Supervision

1. **Student-Supervisor Selection**
   o Do you have specific procedures for selecting both students and supervisors?
   o How are these procedures communicated and implemented? (Please provide examples.)

2. **Changes Due to Quality Agency Directive**
   o How have your supervision practices or procedures changed following the recent directive from the Quality Agency?

3. **Institutional Leadership**
   o What leadership structures support and monitor the doctoral community within your institution?
   o (e.g., doctoral schools, research committees)

4. **Supervisor Training and Monitoring**
   o What training is provided for supervisors, and how is its effectiveness monitored?
   o How is ongoing professional development supported?

5. **Time Allocation for Supervision**
   o What time allowance is given to supervisors for supervising doctoral students?

6. **Supervisor Expertise Matching**
   o How is supervisor expertise matched to students to ensure high-quality supervision in both national and international contexts?

Part 2: National Policy and Internationalization

National Policy

7. **National Funding Criteria**
   - What should be the key criteria for national funding of doctoral students?
   - To what extent would universities accept direction from national bodies on funding allocations?

8. **National Doctoral Centre**
   - Is there a case for establishing a national doctoral centre to monitor provision and provide online research classes?
   - What would be its advantages or disadvantages?

Internationalization

9. **Institutional and Government Support**
   - How can internationalization be effectively supported within institutions and by government policy?

Semi-Structured Interview Guide (for Policymakers)

1. **Monitoring the Student Experience**
   - How is the student experience of doctoral students monitored at the national level?
   - Is this responsibility considered institutional or national?

2. **Resource Requirements**
   - What resource requirements are expected from universities offering doctoral provision?
   - How are these monitored?

3. **Impact of Supervisory Qualification Changes**
   - Since the change in supervisory qualification requirements, what differences have been observed in institutional practices?

4. **International Engagement and Accreditation**
   - If international engagement opportunities (e.g., conferences, research networks) are not available, should accreditation of programmes or institutions be reconsidered?

5. **World-Class System Goals**
    o Is there an expectation to achieve a world-class system for doctoral education?
    o What strategies are in place (or should be in place) to achieve this goal?

6. **Financial Assistance to Doctoral Students**
    o Should assistance (e.g., fees, living expenses) be provided to doctoral students?
    o Should this assistance be linked to national interests or priority areas (e.g., infrastructure, innovation, early years education)?

7. **Supervision by Qualified Academics**

Should institutions be prevented from offering supervision if they lack national or world-class academics in the relevant fields?